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The Illinois State Medical Society



INDEX TO VOLUME 86

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**ILLINOIS**  
*Medical Journal*

VOL. 86



NO. 1

*July, 1944*

In This Issue

The Reversibility of  
Heart Disease



The First Session of  
The House of Delegates



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EXCH. BULL.

OFFICIAL JOURNAL OF THE ILLINOIS STATE MEDICAL SOCIETY

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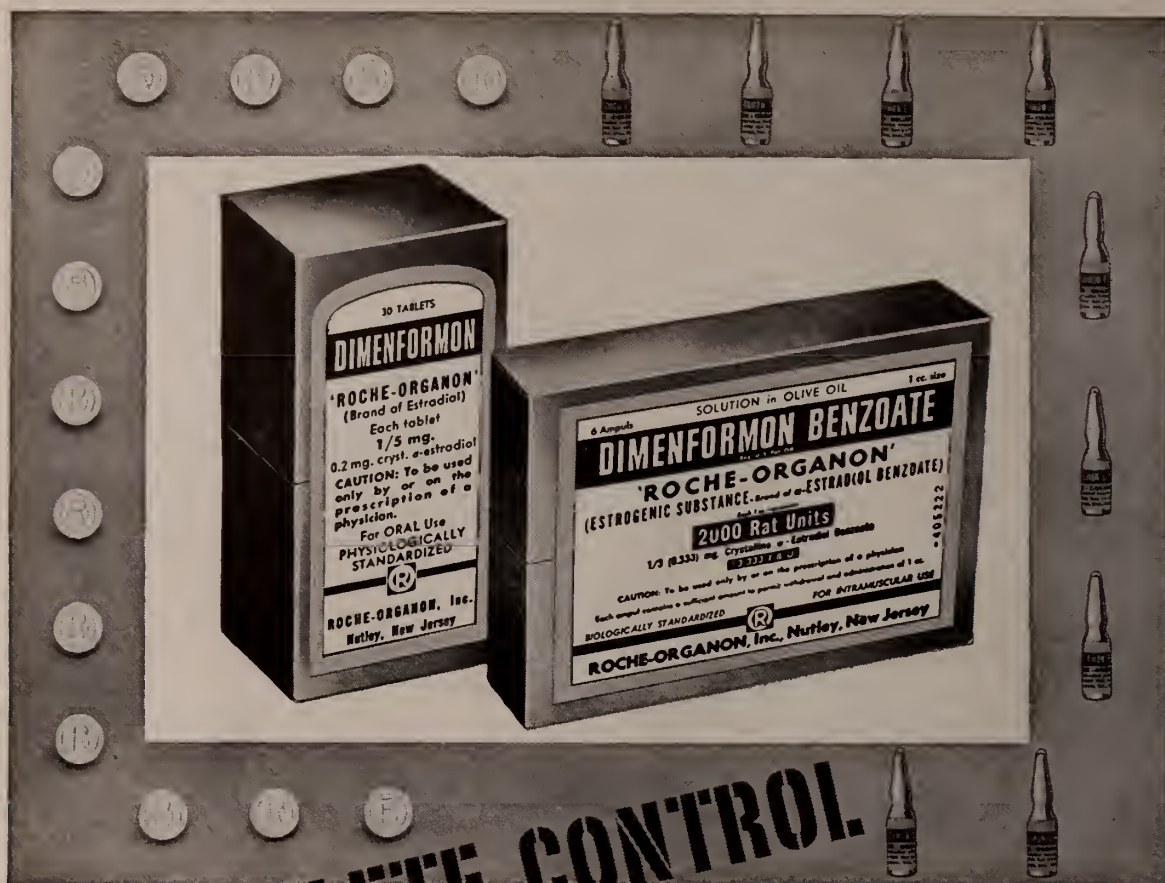
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<sup>1</sup> Thompson, W. O.: *M. Clin. North America*, 28:482, 1944.

<sup>2</sup> Eisfelder, H. W.: *J. Clin. Endocrinol.*, 2:628, 1942.

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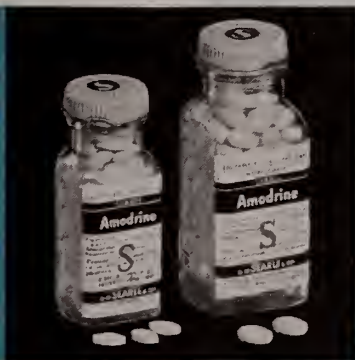
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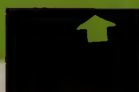
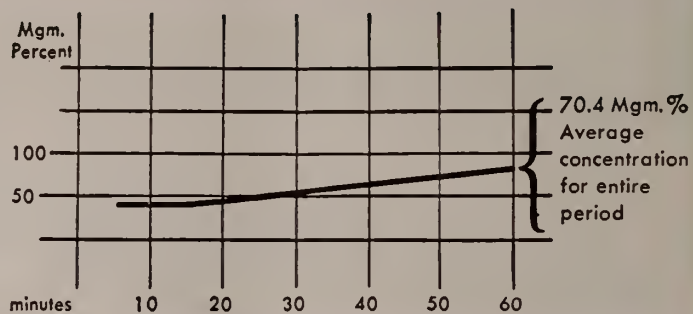
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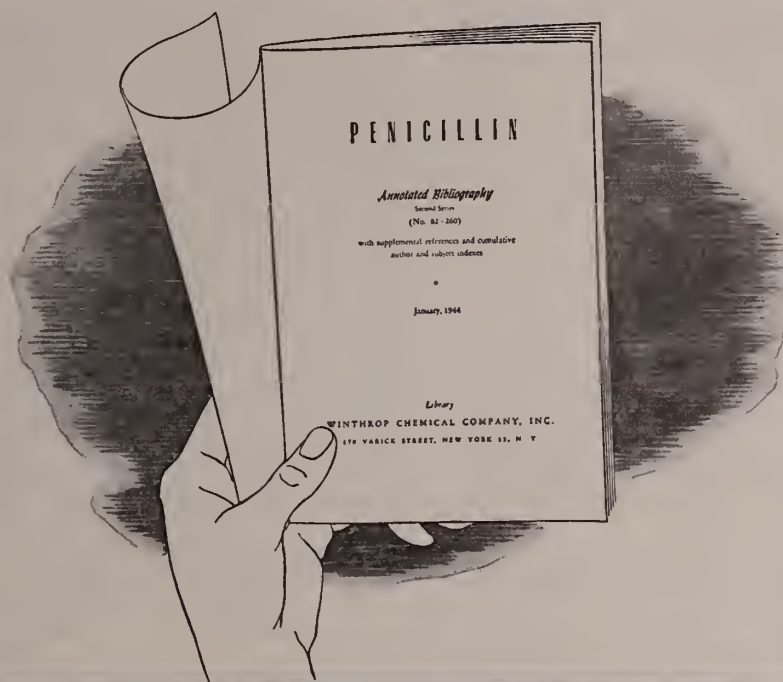
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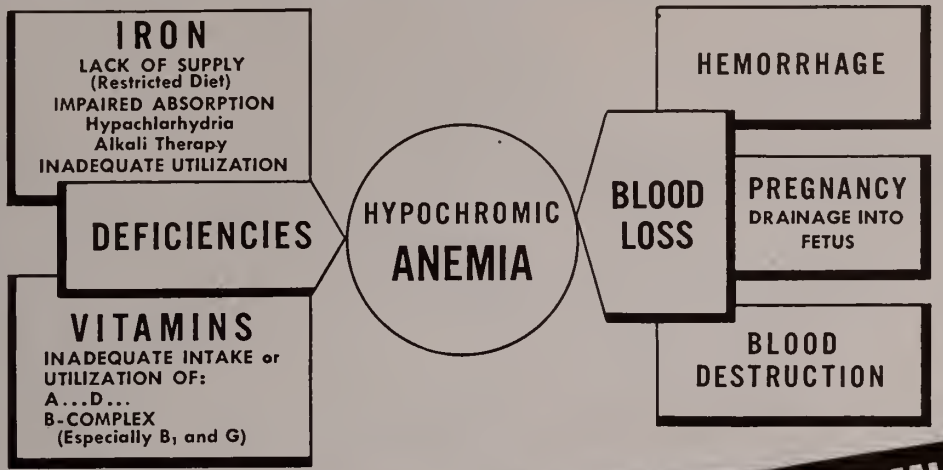


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\* Commenting editorially on the work of Mills and Cottingham (J. Immunol. 47:503 [Dec.] 1943), THE JOURNAL states: "They found that after five and one-half weeks maintenance at 68 F. rats showed a maximum phagocytic activity on diets containing 18 per cent of protein. There was a definite decrease in phagocytic activity with an increase or decrease from this level. In rats maintained at 90°F. the phagocytic optimum diet was 36 per cent of protein. Thus adequate protein intake would seem to be fully as important as adequate vitamin intake to maintain optimal phagocytic activity (resistance to microbic infections). The immunologic optimum protein intake is higher in the tropics than in temperate climates. . . . This demonstration of important variations in phagocytic functions is a pioneer contribution to basic immunologic theory and may have wide clinical implications." (J.A.M.A. 124:1203 [April 22] 1944.)

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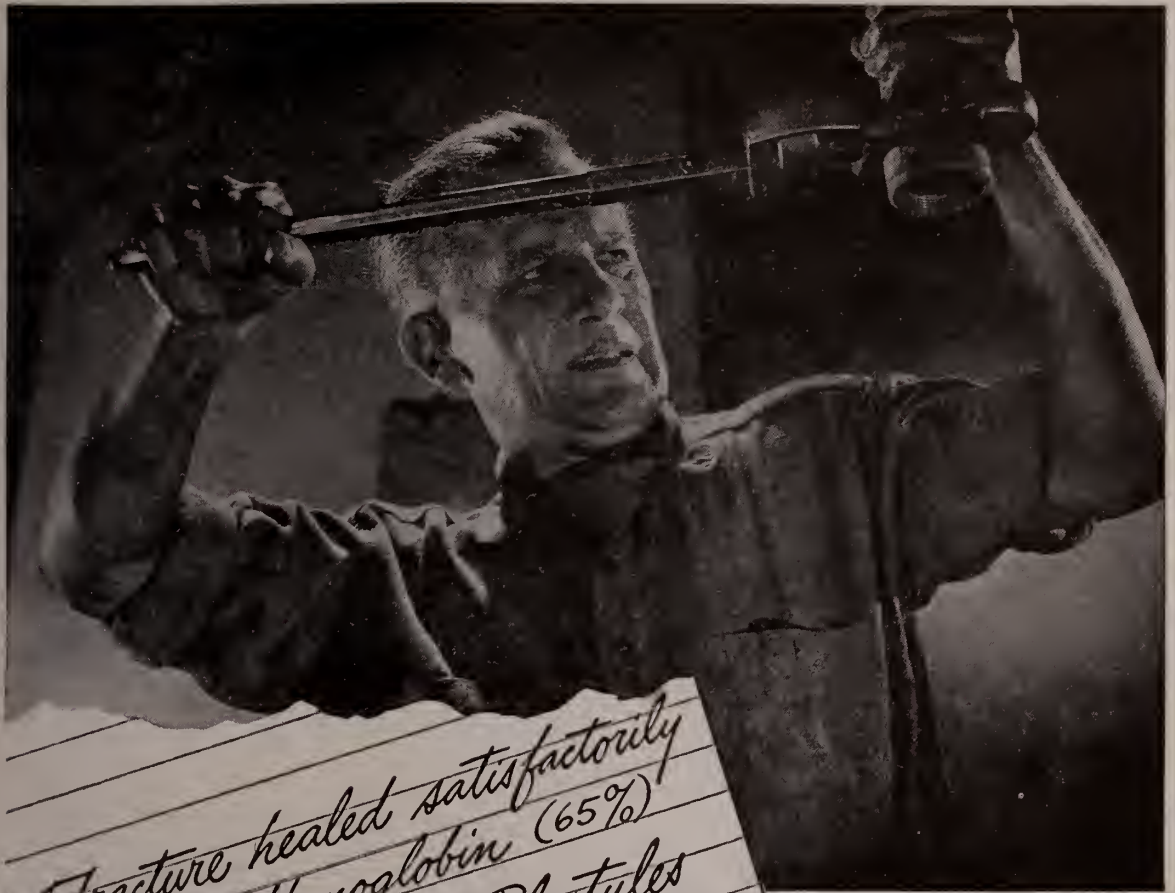
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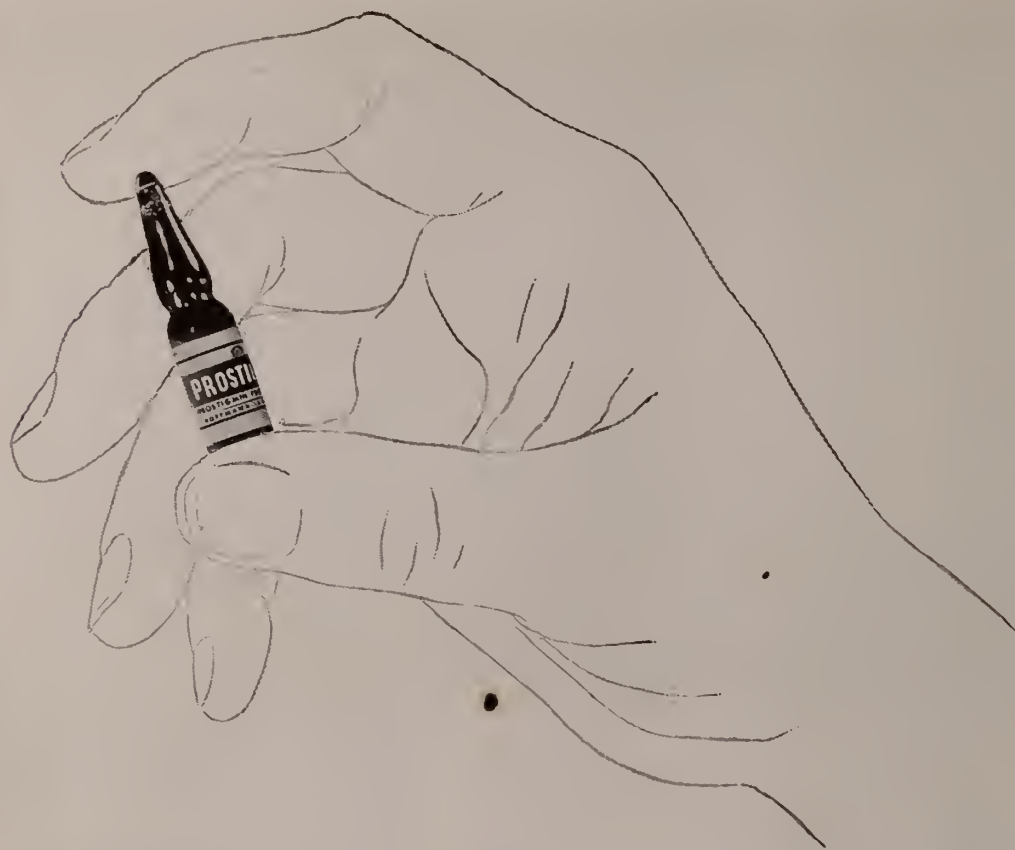
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# *The Illinois Medical Journal*

*July, 1944*

VOL. 86, NO. 1

Official Journal of the Illinois State Medical Society

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## Editorials

### THE 1944 A. M. A. MEETING

The 97th annual meeting of the American Medical Association was held in Chicago, June 12 to 16, with an excellent wartime attendance. As will be recalled, one year ago the A. M. A. House of Delegates met in Chicago, but there were no scientific programs nor were there any scientific or technical exhibits.

This year it was necessary to have various programs scheduled in several of the loop hotels. General meetings, scientific exhibits, meetings of the House of Delegates and some of the section meetings were held in the Palmer House. The large display of technical exhibits, the largest in the history of the A. M. A., were at the Stevens, where several of the sections held their meetings. Several other hotels were used for scientific meetings during the session.

If you will read the transactions of the House as they appear in the Journal of the American Medical Association, you will find familiar names — names of Illinois physicians of whom you may well be proud — appearing as contributing their thought and efforts in the behalf of organized medicine.

One of the first orders of business was the selection of the physician to receive the Distinguished Service Medal. There were three candidates for consideration, Isaac Abt of Illinois, and Simon Flexner and George Dock representing the far east and the Pacific coast. On

the first ballot Doctor Abt received 49 votes, and each of the other candidates 52 each. Then on the second ballot, Dock received 88 and was selected for the presentation on Tuesday night.

The list of officers, trustees, and members of the House who have died since the last meeting was read. Those from Illinois were Arthur Dean Bevan as past president, J. R. Ballinger, Clifford U. Collins, J. C. Krafft and Frank C. Sibley.

Naturally the most prominent member of the Illinois State Medical Society to be honored this year, was Herman Kretschmer, who presented his report as President-Elect. He paid tribute to one of the outstanding physicians in Illinois, editor of the Illinois Medical Journal for many years, Charles J. Whalen. Doctor Whalen introduced in the House of Delegates the first resolution relative to the efforts of various groups in this country to lay the ground work for the socialization of medicine. At the time Dr. Whalen spoke, eloquently and forcibly as always, many considered him unduly alarmed, unduly perturbed, and unduly concerned over the efforts to place medicine under federal control.

Four of the nine Illinois delegates served on reference committees for the session. G. Henry Mundt was a member of the Committee on Credentials; E. S. Hamilton was named chairman of the Reference Committee to review the Reports of the Board of Trustees and the Secre-

tary; Charles H. Phifer was named a member of the Committee on Medical Education, and Robert H. Hayes as a member of the Committee on Miscellaneous Business.

At the final session of the House Charles H. Phifer was elected as a member of the Council on Scientific Assembly for a term of five years.

The week was a busy one. Important economic, social and medical problems were presented for action. Many resolutions were presented and referred to the proper committees at the first meeting; then they were considered carefully at subsequent sessions.

#### HIGHLIGHTS AND HEADLINERS

Foremost in the limelight of criticism and discussion was the Council on Medical Service and Public Relations and the opening of their Washington office. The report of this Council, together with the supplementary report submitted, was approved however, and the House

accepted the assurance offered by the Council that their work in Washington would be extended and improved. The Board of Trustees was urged to give them sufficient funds to permit them to carry on their activities and to enlarge their Washington office as soon as possible. Adequate personnel in Washington and in Chicago was likewise recommended.

Admiral Ross T. McIntyre, Surgeon General of the Navy, Lieutenant General Lim, Chief of Medical Services in the Chinese Army, Major General Norman T. Kirk, Surgeon General of the Army, were all present. General Kirk paid tribute to the medical personnel and stated that the services rendered during this war in all fields had made the finest medical care available for our men in service on all fronts. Major General Grant, Chief Medical Officer of the Air Forces, was introduced and presented some of the problems confronting medical personnel dealing with aviation medicine. Problems of fatigue and also those of a neuropsychiatric nature were stressed in their relationship to air

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corps personnel. General Lim, speaking English fluently, told of the problems of caring for the 8,000,000 troops in the Chinese Army with only 2,000 medical officers. He told of the long hours, the intense work in the field of preventive medicine, their constant endeavors to render early first aid, their efforts to give modern care for shock, burns and other injuries.

The nine official delegates from the Illinois State Medical Society were present at every session of the House of Delegates and participated in many deliberations.

Roger I. Lee of Boston, a member of the Board of Trustees for ten years, and more recently its chairman, was unanimously elected as president-elect. Stanely J. Seegar, Texarkana, Texas, was elected as vice president, and Olin West was re-elected as secretary and general manager. Louis H. Bauer of New York was elected to membership on the Board of Trustees for a five year term, and Elmer Henderson of Kentucky was re-elected as a member of the Board for five years.

Atlantic City was chosen as the meeting place for 1947, which will be the 100th anniversary of the formation of the A. M. A. It is proposed to make this an outstanding centennial meeting.

Nearly 7,500 physicians attended this wartime meeting. The transactions of the House, the addresses so ably presented, etc., will be published in the Journal of the A. M. A. in the near future. If you were not present you will find these printed pages offering you the important problems, their presentation, the actions taken, etc. Reading this material will familiarize you with the activities and the progress being undertaken by organized medicine.

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### CONSERVATION OF HUMAN LIFE

With the present day shortage of manpower prevalent in various parts of the country, and the constant efforts to locate men for industry, agriculture, and wartime essential capacities, the American people should at this time more than ever before, guard themselves against unnecessary hazards. It has been known for a long time that people live longer and remain efficient in their many fields of endeavor if they plan time off occasionally for one of the many popular types of recreational relaxation.

In the summer time many go north to the lakes, or if accessible, perhaps to the seashore, while others prefer a mountain vacation, or a week in a cottage on the banks of a popular river. A report recently received as released by the Minnesota State Conservation Department Bureau of Information shows that from January 1st to June 1st of this year, there were 62 accidental drownings in that state. The fishing season, not then under way, will add many additional drownings during the present summer. One Twin City paper during June reported some 10 or 12 additional deaths from drowning over a single weekend. These varied from one to three persons drowned for each accident. Seventy-five percent of the drownings occurred in men and boys, several being service men on furlough.

A few simple rules referred to as the "ten commandments" have been released for republication in as many northern papers as possible with the hope that many people will consider them seriously and perhaps minimize death from drowning during the 1944 vacation season. They are as follows:

(1) Before you rent a boat, inspect it carefully. See that it is of good design, construction, and in good condition.

(2) Remember that any boat is dangerous if overcrowded.

(3) Always row toward the shore at the first sign of a storm.

(4) Never stand up or change seats in a boat.

(5) Take the advice of the man from whom you rent the boat. He knows local hazards.

(6) Always swim at designated beaches.

(7) Always underestimate your swimming ability.

(8) Never let children out of your sight when near the water.

(9) If your boat capsizes, stay with it as long as it floats or until help arrives.

(10) In casting from a boat in which there are other people, remember that a fish hook is sharp and if caught in the eye or face, may cause serious damage.

It would be easy to add several more warnings or commandments to those listed above, but the longer the list, the more probable that it would be forgotten.

Each fall thousands of hunters go north during the deer season and many are killed either by accidental discharge of their own gun or by one fired by another in the party; or perhaps by a hunter from another party who believes that anything moving in the deer country during hunting season, is a deer.

In most essential industries today, more safety devices are being added each year to guard against increasing hazards of the workers. All large plants have physicians trained in industrial medicine and surgery not only to care for the casualties but also to maintain the health of the workers.

Health programs are developed for many other types of workers, but accidents occurring when the workers are off the job, at home, on the highways, or on vacation, have not appreciably been reduced, with the exception of auto accidents since the beginning of the war, and this is largely due to the restrictions on gasoline, tires and rate of speed during wartime.

Boats, like cars, are restricted under wartime conditions, and most of the boats made available for vacationists are not being replaced each year as was formerly the case. So it is more imperative this year than ever before that the ten commandments as outlined above, be uppermost in the minds of those spending their vacation on or near the water.

#### THE A.M.A. WASHINGTON OFFICE

The first week in April, 1944, the A.M.A. Council on Medical Service and Public Relations opened an office in Washington, to give what was thought to be a much needed service to legislators and officials of various governmental departments and agencies desiring accurate information concerning health problems, those pertaining to medical care and relative to the work of the A.M.A. and its subsidiary state medical societies. Likewise it was desired that all state and component county societies be kept informed of legislative proposals which might in some way affect the practice of medicine in the American way.

The Washington office has worked under unusual war time handicaps, but has endeavored to give the best possible service under existing conditions and the Council on Medical Service and Public Relations deserves much commenda-

tion for the work which has been accomplished during the three months the office has been functioning.

At the recent meeting of the American Medical Association a full report of activities of the Council was presented in much detail, and a supplementary report was presented before the House of Delegates relative to certain proposals which the Council believed would be desirable for the coming year. These reports were referred to the proper reference committees, were carefully considered, and were in large measure approved by the House of Delegates.

It was the general consensus of opinion on the part of the members of the House that the A.M.A. is the one and only logical organization qualified through experience and personnel to conduct the proper type of Washington office of information and eventually give the desired type of service. When the Council was organized one year ago the responsibility for selecting the personnel for the first year was placed in the hands of the Board of Trustees, which named the six members to serve until the 1944 annual meeting. At the end of the first year it became the duty of the Board of Trustees to select three candidates from each of the six geographic zones so that the House of Delegates could elect one of the three candidates, and the six so elected to constitute the members of the Council for terms of one, two and three years, and each year thereafter, two shall be elected for the three year term.

In the interesting report of this Council, it was stated that full cooperation had been received during the past year from the Board of Trustees and everything that was asked of the Board was promptly granted. With this type of cooperation in the future between the Board of Trustees and the Council on Medical Service and Public Relations, it seems quite logical to believe that the Washington Office will continue to serve its purpose and with the recommendations of the Council, approved by the House of Delegates, this office will gradually be of greater service to both legislators and others desiring information, and likewise to the state and county medical societies throughout the nation.

# Correspondence

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## REFRESHER COURSE IN OTOLARYNGOLOGY

The University of Illinois College of Medicine announces that its fall didactic and clinical refresher course for specialists in otolaryngology will be held at the College from September 25 to 30 inclusive. The fee for the course is \$50.00. Since registration is limited to twenty-five, applications should be filed as early as possible. Write for information to Department of Otolaryngology, University of Illinois College of Medicine, 1853 West Polk Street, Chicago, 12, Illinois.

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## DOCTORS OFFERED COURSE IN OBSTETRICS, AUGUST 7-12, 1944

At the last meeting of the Maternal Welfare Committee of the Illinois State Medical Society and also at the meeting of the Advisory Committee to the Division of Maternal and Child Hygiene, it was decided to offer a one week course in obstetrics. It was proposed to give a similar course to the one given in previous years at the University of Illinois, using the facilities of the obstetrical department and bringing in instructors from the other Universities for special lectures, conferences and round table discussions. This course will be given at the University of Illinois College of Medicine, August 7-12. Anyone interested in taking the course can secure additional details from Doctor H. V. Hulberman, Chief Division of Maternal and Child Hygiene, State Department of Public Health, Springfield, Illinois.

## REPORTS ON FIFTY YEAR CLUB

The Fifty Year Club had a noonday luncheon May 17th, during the State Medical meeting. There were about sixty-five members of the Club present and some eight or ten visitors. Quite a number of out of state members were present.

Dr. Frederick Tice was inducted into the Club and presented with the lapel button and certificate to which all members are entitled. Drs. Tice, Ochsner, Ruud, Holmes, Carl Black and Lyles delivered very interesting and appropriate short talks. Dr. Black displayed a most interesting collection of photographs of physicians. Quite a number had been sent to him during the past year. It was consensus of opinion that this should be a feature of the State meeting annually.

Andy Hall, M. D.

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## \$5,400 ANNUALLY FOR RENAL HYPERTENSION RESEARCH.

The John and Mary R. Markle Foundation has authorized a grant-in-aid of \$5,400 annually, for a two-year period, in support of research on experimental renal hypertension at the University of Illinois College of Medicine, Chicago.

The research work which was initiated in 1942, under a two-year grant of \$7,000 from the Markle Foundation, is being conducted under the direction of Dr. George E. Wakerlin, Professor of Physiology and Head of the Department.

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Fatigue spans the arch between health and disease. We know that artificially exhausted animals are more susceptible to pneumonia — that tuberculosis is in part a fatigue problem. M. Z. Gross Hygeia, October, 1942.

# Medicine's Role in the War Effort

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## AIR SURGEON'S CONVALESCENT PROGRAM

Col. Henry M. Bailey was recently designated commanding officer of the new Personnel Distribution Command within the Army Air Forces, consolidating within one organization various related activities in connection with the processing of AAF personnel going overseas and returning from combat. The command will include supervision of the AAF redistribution center, through which all Air Forces personnel return to this country from assignments abroad, and the seven AAF convalescent centers now operating in the United States. The command also will operate a number of rest camps, the first of which was recently established at Lake Lure, N. C. The two Air Forces overseas replacement depots at Greensboro, N. C., and Kearns, Utah, also will be operated by the personnel command. Personnel allotted to redistribution stations, replacement depots and convalescent centers will be reassigned to the new command. Members of the AAF returning from overseas first report to one of the redistribution stations, where they are interviewed and classified for new duties or, if necessary, sent to one of the convalescent centers for thorough physical reconditioning and for special training by which the AAF provides new opportunities for men who have been disabled in combat.

The convalescent centers have been conducted by the Air Service Command and the First Air Force and are located at St. Petersburg, Fla.; Pawling, N. Y.; Fort George Wright, Washington; Fort Logan, Colorado; Albuquerque, N. M.; Nashville, Tenn., and Coral Gables, Fla. The Air Surgeon reported that 80 per cent of the patients at the convalescent centers since December 1942 have been returned to duty. More than thirty courses of vocational training are now available in these centers for returned soldiers. The Air Surgeon also reports that thirty million man-hours have been spent in convalescent training since its organization.

The AAF convalescent training program also takes care of the soldier who is to be discharged from service and is designed to assist the man in making the best possible physical, social and economic adjustment on leaving the Army. In many cases suitable employment is found for him in aircraft industries.

The Air Surgeon's Convalescent Training Program was recently cited by the American Academy of Physical Education. The text of the citation read "Shortly after the entrance of our country into this war the Office of the Air Surgeon took the initiative in organizing and promoting a Convalescent Training Program in the hospitals of the Army Air Forces. With disregard for precedent they pushed this program forward rapidly and effectively; they engaged in pertinent experimental work to clarify some of the more debatable problems related to reconditioning of the ill and injured, and pioneered the establishment of this movement in this country. For making available to the sick and disabled of our armed forces the latest discoveries and the finest services of both medicine and physical education, the American Academy of Physical Education takes pleasure in citing the Convalescent Program of the Office of the Air Surgeon."

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## URGENT NEED FOR NURSES

Dr. Frank H. Lahcy, chairman of the Directing Board of the War Manpower Commission's Procurement and Assignment Service, which is responsible for the equitable allocation of nurses between the armed forces and the civilian population, stated that 10,000 graduate nurses have been requested by the Army between now and July 1, 1945 and that the Army would like at least 5,000 of them by Dec. 31, 1944. The Navy also has a continued urgent need for at least 500 nurses a month until its full strength is achieved. In addition, both services will always require some replacements.

Although all active graduate nurses in the United States have not yet been classified by the Procurement and Assignment Service as to whether they are available for military service or essential to civilian care, reports from thirty-two states show that the nursing profession can still spare nurses for active duty with the Army or Navy. Sixty thousand nurses have been classified in those states, and those who have been declared available are expected to apply for a commission in the Army or Navy Nurse Corps. Reports from the remaining states where classifications have not been completed are expected soon.

The Procurement and Assignment Service, which was established in 1941 to allocate physicians, dentists, veterinarians and sanitary engineers, was not given the responsibility for nurses until July 1943. A classification system for nurses, comparable to that established for physicians, was therefore established recently to anticipate military needs before they become acute.

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#### LIEUTENANT COLONEL LITTELL EXECUTIVE OFFICER AT VAUGHAN GENERAL HOSPITAL

Lieut. Col. George S. Littell has been named executive officer of the Vaughan General Hospital, Maywood, Ill., which is nearing completion. Dr. Littell recently returned from nearly two years' service in the Southwest Pacific. He was deputy chief surgeon of the American forces in the Southwest Pacific and was later appointed chief of preventive medicine in the chief surgeon's office. He returned to the United States last November and has been serving at the Surgeon General's Office. Dr. Littell succeeds Col. Stuart G. Smith, who has gone overseas.

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#### NEW HOSPITAL SHIPS GO INTO SERVICE

The War Department recently announced that ten new hospital ships are commissioned and in service, making a fleet of eighteen hospital ships with a total capacity of more than 10,000 patients. These will be used for the Army to evacuate the wounded American and Allied troops from France and from other combat zones. Under the direction of the Transportation Corps, Army Service Forces, the ten new hospital ships were converted from former army transports and cargo vessels by commercial shipyards. Six new hospital ships will be added to this fleet by the end of 1944. The average number of patients carried by each of the hospital ships is about 600. The twenty-four vessel mercy fleet, all operated under terms of the Hague Convention of 1907, will have a total patient capacity of more than 14,000, of which about 3,300 will be for ambulants, or "walking wounded." It is expected that some of the twenty-four hospital ships will be used in intratheater operation, in keeping with the War Department's plan for progressive evacuation of casualties.

The ten new ships and ports from which they sailed were the *John L. Clem* from New Orleans, the *Ernest Hinds* from San Francisco, the *Marigold* from Seattle, the *Larkspur* from Jacksonville, the *John J. Meany* from Boston and the *Dogwood*, the *Blanche F. Sigman*, the *Emily H. M. Weder* and the *Wisteria*, all from New York. The tenth ship is the *Mercy*, sailing from Los Angeles. This is a navy ship, manned by the Navy but operated for the Army.

The *Blanche F. Sigman* was named in memory of 1st Lieut. Blanche F. Sigman, Army Nurse Corps, who was killed in action on the Anzio beachhead Feb. 7, 1944. A native of Cambridge, Ohio, she joined the Army Nurse Corps in July 1942. The *Emily H. M.*

*Weder* was named in memory of Major Emily H. M. Weder, a Regular Army Nurse since 1918, who died last February at Walter Reed General Hospital, Washington, D. C. Her home was in Sellersville, Pa.

The Army's present fleet of hospital ships includes the *Acadia*, the *Algonquin*, the *Chateau Thierry*, the *St. Mihiel*, the *Seminole*, the *Shamrock* and the *Thistle*. In addition the Navy owned and crewed *Comfort*, commissioned at Los Angeles in May, is operated for the Army. The six new hospital ships to be added by the end of 1944 are the *St. Olaf*, the *Jarrett M. Huddleston*, the *Charles A. Stafford*, the *Lewis Luckenbach*, the *Dorothy Luckenbach* and the *Hope*. The *Hope*, like the *Comfort* and the *Mercy*, will be operated by the Navy for the Army.

The Medical Department staffs the vessels, including the three navy operated ships, with army medical personnel, including surgeons and officers of the Army Nurse Corps.

In keeping with international treaties, the hospital ship at sea is instantly recognizable as a mercy ship. Its hull is painted white, a horizontal green band is painted the whole length of the ship on each side, a huge Red Cross is painted in the middle of the starboard and port sides, a Red Cross is painted on deck and others are painted on each side of the funnel. The entire vessel is equipped to provide electrical illumination, including lighted red crosses, from sunset to sunrise. It is unarmed and carries only the necessary crew and medical personnel, in addition to patients.

Operation of hospital ships by the Transportation Corps is directed in accordance with international practice under applicable treaties (particularly the Hague Convention of 1907) and supplemented by such regulations covering operation of United States army transports as are not in conflict with such treaties.

The civilian crew aboard a hospital ship is employed under civil service status by the Transportation Corps. The master is in supreme command of the ship and all persons on board who sign the ship's articles. He is responsible for and has full control of operation, navigation and the safety of the ship as required by navigation laws and rules of the United States; safe delivery of passengers and cargo at destination, and discipline and efficiency of the crew.

The senior medical officer aboard a hospital ship is the ranking surgeon and is permanently stationed aboard the vessel as hospital ship commander.

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#### ARMY HOSPITALS IN INDIA NOW AIR CONDITIONED

A number of air conditioning units, built by the York Corporation, have been installed in British military hospitals in India to guard against the dangers of perspiration borne infection in American and British soldiers' open wounds during convalescence in that excessively humid climate. General recovery of convalescents is speeded up also because of the units' capacity to combat atmospheres with a temperature of 110 F. and above the humidity of 80 per cent and more.

## YELLOW FEVER IMMUNIZATION

In view of recent agreements reached by the War Department with the foreign governments concerned, military and civilian personnel subject to field service with the Army, and others authorized to travel to or through endemic yellow fever areas by army transport or airplane, will be vaccinated against yellow fever within four years and not less than ten days prior to entry into an endemic yellow fever area. This policy applies to all persons 10 years of age and older. In order to meet the requirements of the foreign governments concerned, children under 10 years of age who travel by army transport or airplane must have been vaccinated within two years. For the purpose of meeting quarantine requirements of all foreign countries, the Surgeon General now redefines the endemic yellow fever areas as follows: 1. In the Eastern Hemisphere, that portion of Africa lying between latitude 18 south and the northern borders of French West Africa, French Equatorial Africa and the Anglo-Egyptian Sudan, including the islands immediately adjacent thereto. 2. In the Western Hemisphere, the mainland of South America lying between latitudes 13 north and 30 south, including the islands immediately adjacent, and Panama, including the Canal Zone. However, transit through the Panama Canal with brief sojourns within the terminal port cities or army posts within the Canal Zone will not be considered as travel through an endemic area.

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## PROCESSING OF PHYSICIANS

Both the Army and the Navy have authorized the appointment of civilian physicians and dentists to commissioned grade for assignment to duty with the Veterans Administration, provided they are unacceptable to the Army or the Navy because of physical disqualification or age and the War Manpower Commission has declared them, in each case, available. The Army will appoint for this duty civilian doctors and dentists up to the age of 63 years; the maximum age for Navy appointment is 60 years. Applications of physicians and dentists declared available to the Army will be handled as follows: (a) Those physically disqualified for duty with an army installation or unit but physically qualified for duty with the Veterans Administration will be considered for appointment in the Army of the United States and assignment to a Veterans Administration installation. (b) Those physically qualified for general or limited military service with an army installation or unit will be considered as follows: (1) Those under the age of 45 years may be commissioned in the Army of the United States for duty with an army installation; (2) those between 45 and 55 years of age who are physically qualified for general military service only will be referred by the Officer Procurement Service to the Navy for consideration for appointment by the Navy for duty with a navy installation; (3) those between the ages of 55 years and 63 years will be considered for appointment in the Army of the United States for duty with the Veterans Administration only.

On contacting a physician made available to the Army, he should be informed that if physically disqualified for duty with an army or navy installation, or over age for either service, he may be qualified for duty with a Veterans Administration facility. If commissioned in the Army and placed on duty with the Veterans Administration he has all the rights, privileges and obligations of any other army officer. Veterans Administration's professional standards are identical with those of the Army.

For the present the Veterans Administration does not require the services of dentists under this program.

Previous instructions on the processing of physicians, interns and residents have been canceled.

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## CORRESPONDENCE AND INQUIRIES RELATING TO MEDICAL MATTERS

The War Department issued a memorandum on May 13 stating that all correspondence and inquiries received by the War Department relating to medical matters, including among other things the health, physical status and mental condition of all personnel assigned to any branch of the Army and the status and operation of all army medical and related establishments, will be referred to the Surgeon General for the action desired. The Surgeon General will refer such communications as he may consider proper to the commanding generals, Army Air Forces and Army Ground Forces, for direct reply. The commanding generals, Army Air Forces and Army Ground Forces, will furnish a copy of such reply to the Surgeon General. He will check to see that it conforms with policy and if it does not will so inform both the headquarters concerned and the office of the chief of staff.

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Tuberculosis is a social problem with a medical aspect. Sir William Osler

Those in the general health field are apprehensive wherever social and economic factors have dislocated and reconcentrated large groups of the population. Such upheavals create what might be called an epidemic potential. One soon knows what is happening in acute communicable diseases for there is a sharp dividing line between health and acute disease. This is not the case in tuberculosis. Here the period of incubation as used in its ordinary sense, is vague, ill-defined, and long-drawn out. The onset is not dramatic and neither morbidity nor mortality figures of today reflect what is happening currently. Insofar as this disease is concerned, the aftermath of the present social and economic dislocations is as important, if not more important than the immediate effect. One must meet current problems as they arise but one must recognize that danger may not manifest itself for years to come. Harry Mustard, M. D. Transactions, N.T.A. 1943

# Original Articles

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## THE RÉVERSIBILITY OF HEART DISEASE

PAUL D. WHITE, M.D.

BOSTON

Time marches on! And with it there has come during the last twenty-five years a truly extraordinary development in our understanding and therewith in our treatment of heart disease. *We have learned that heart disease is now often reversible.* What was largely optimism based on little experience twenty years ago has now become fact proved by many studies since that time. The thrill of being a doctor in these days and to have witnessed this one change alone has been worth more than all the other rewards that come to the medical worker. This will indeed go down in history as a golden age in cardiology.

Let me recount to you in summary form the history of this field of medicine and end with our present status and the promise of the future. Lest you regard medical history as a dry-as-dust preoccupation of the superannuated I would hasten to say that it should be appreciated as the foundation of our medical instruction and the base on which our future progress must be built. We should seize upon the trends and methods of the past and present that illuminate the path ahead and avoid the pitfalls and the errors, attractive or seductive as they may have at one time seemed in the medical fashions of the day.

*Heart disease was unknown before the year 1500.* Damage to the heart from any cause was considered tantamount to death. Then autopsies

on man which began to be carried out with or without official sanctions of church or state revealed old scars of all parts of the heart that had not prevented long and active lives, and *slowly heart disease came into more than its own.* By the turn of the 18th into the 19th century it was regarded by some, Corvisart for example, as more common than all other ills put together and as responsible for innumerable symptoms most of which were trivial. But although much work was done and published by workers in pathology through the 19th century in the field of heart disease there was astonishingly little correlation of all this with clinical observations or study of the natural history or evolution of heart disease in the living patient. *In fact so little progress had been made along these lines that as recently as thirty years ago, when I was medical student, interne, and hospital resident, we were still being taught and believed that heart disease was final and fatal, that the coronary arteries were forever "end arteries," and that at best we could simply delay a little the day of dissolution and make a bit more comfortable the remaining hours of the victims.*

And now begins the exciting drama of the changes in our point of view and of our active attack on what had seemed so hopeless. A scant twenty years ago the procession began with the clearcut proof of the *reversibility of the effects of thyroid disease on the heart, of both major types: thyrotoxicosis and myxedema.* Patients seriously ill with cardiac enlargement, auricular fibrillation, and even congestive failure due to high degrees and long years of thyrotoxicosis, signs previously considered as contraindications for surgery, began to be restored to good health

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Oration in Medicine, presented at the Annual Meeting, Illinois State Medical Society, Chicago, Ill., May 16, 1944.

by the bold subtotal thyroidectomy carried out by Frank Lahey with the wise advice of Burton Hamilton.<sup>1</sup> Nowadays such problems rarely arise and the newest generation doubts the very existence of thyrotoxic heart disease as the result of the great advance that has taken place in the early recognition and proper treatment of thyrotoxicosis itself. However, I still see about one or two cases a year, usually in older patients in whom the diagnosis has been missed and in whom much improvement in the cardiac status can be effected by operation. Once upon a time three per cent of our true cardiacs were thyrotoxic.

Similarly the administration of thyroid gland to patients with myxedema in those years twenty to thirty years ago dramatically reversed the effects on the heart, as so clearly demonstrated by x-ray with reduction to normal heart size from its commonly marked enlargement, and by electrocardiogram with restoration to normal voltage of all the complexes from their markedly low initial amplitudes.

Thus the story began. Since those early days *every single variety* of heart disease has, in some degree at least, manifested its reversibility either spontaneously or under treatment, medical or surgical; the last to enter the fold was the one I most despaired of only a few years ago, namely hypertensive heart disease.

In 1928 a young woman, nineteen years old, a hopeless invalid because of severe congestion due to *chronic constrictive pericarditis*, the so-called Pick's disease, was restored to good health within a few weeks by pericardial resection brilliantly carried out at the Massachusetts General Hospital by E. D. Churchill.<sup>2</sup> She has remained perfectly well since and was the first of a long series of cures in about half the cases so operated upon since then in this country, following the initial suggestion by Delorme in 1898 and the pioneer surgery in this field in Germany some fifteen years later.

The next step in our present chronological account concerns *rheumatic heart disease*. Here the reversibility has been largely spontaneous, although it remains a possibility that saturation with salicylates either orally or intravenously may yet be shown to play a role — only time will tell. What we do know is that cardiac enlargement and important murmurs, *diastolic* as well as *systolic*, which I think almost all of us

were ascribing to early valvular disease in children fifteen to twenty years ago, were observed in some cases to clear up entirely or to be found at autopsy to be unaccompanied by valvular deformity. They were evidently due to the temporary effect of acute myocardial rheumatism with ventricular dilatation, as we wrote only some ten years ago,<sup>3</sup> though doubtless the condition had existed since the time of Adam.

About this same time there began to be consolidated the surgical attacks on *aneurysms*, both *saccular* and *arteriovenous*. Excision or wiring of the former and removal of the latter not only abolished the hazard from the local lesion, particularly of rupture in the former case, but in the latter relieved the strain on the heart which had resulted sometimes in considerable enlargement secondary to the great increase in blood flow. Also we began to appreciate that thrombosis occasionally occurring in aneurysmal sacs, spontaneously as well as by wiring, could seal the local lesion, actually reduce its size in some cases, and prevent its rupture.

We now come chronologically to the most important consideration of all, namely *coronary heart disease*. It is an astonishing fact that despite all the work and writings of the pathologists during the 19th century on the structural changes in the heart associated with serious coronary artery disease, including myocardial infarction, old and new, that so little was known clinically about coronary heart disease prior to Herrick's classical paper in 1912.<sup>4</sup> Indeed during my medical school days there was still perennially fresh the old dispute between those who thought that angina pectoris was due to disease of the aorta and those who blamed it on coronary insufficiency. Prior to Herrick it was currently believed that occlusion of a large coronary artery meant early death; as a matter of fact even after 1912 for a good many years a long survival was not thought possible. If a man lived long after acute myocardial infarction or got rid of angina pectoris decubitus or on effort it was the common opinion that the diagnosis had been wrong.

During recent years, actually about ten, as the result of growing clinical and electrocardiographic experience and particularly of the fundamentally significant observations of Schlesinger and Blumgart,<sup>5</sup> we have become aware of

the large number of cases of coronary heart disease that do well for many years after acute occlusion or the very first attack of angina pectoris. When the realization that this might be true dawned on us a decade ago we began excitedly to report record survivals; now such cases are commonplace. The answer is, of course, the development, in major part spontaneous, of a collateral coronary circulation to bypass the point or points of block and so to maintain an adequate circulation to all parts of the myocardium. Thus no longer were the coronary arteries end arteries, though functionally they doubtless started as such. Under the increasing head of pressure through the years the smaller coronary twigs and their branches become larger and are able usually to transport to the myocardium, where needed, increasing amounts of blood. With ordinary luck this is what happens to the average person as he or she grows older; there may actually be a complete slow occlusion of a major coronary trunk with no heart disease at all, due to this spontaneous adjustment. Thus coronary (artery) disease is not to be confused with coronary heart disease. The various measures, medical and surgical, that have been carried out to stimulate the development of this vital collateral circulation, have not been at all outstanding in their successful results. Dame nature still does the best job. It is tremendously important in our treatment to realize this, while not omitting, however, our efforts at therapy.

Ten to twenty years ago it was commonly accepted that the symptom *angina pectoris* presaged a relatively short life and that the trouble was there to stay. Four to five years were the generally quoted average duration of life after the first attack of angina pectoris. Those of us who were following hundreds of cases for a good many years realized that these old ideas were wrong, and so my colleagues and I were stimulated last year to make at last an adequate follow-up study.<sup>6</sup> Such an analysis showed two things: first, that the average expectation of life was actually double that currently taught, that is between 9 and 10 years instead of between 4 and 5, and second, that angina pectoris, either decubitus or on effort, not infrequently subsides spontaneously with the development of an adequate collateral circulation. The earlier error as to longevity is to be ascribed to

the inadequacy of earlier follow-up studies, living cases in groups analyzed not having been included during relatively short periods of follow-up, and also to the omission of mild or recovered cases which had been excluded because of the old erroneous idea of the irreversibility of coronary heart disease.

Nine years ago my associate, Sylvester McGinn, and I called attention to a newly recognized clinical entity which we designated the *acute cor pulmonale* consisting largely of dilatation of the right heart chambers and pulmonary artery secondary to the high pulmonary arterial pressure caused by sudden massive blocking of the pulmonary circulation by pulmonary emboli.<sup>7</sup> This condition, often critical for hours or days, usually clears itself in a short time unless further embolism takes place; it is such recurrence that it is our duty to prevent.

Between five and ten years ago further reversible manifestations of heart trouble were clearly defined in small but interesting groups, namely the cardiac dilatation found in *acute hemorrhagic nephritis*,<sup>8</sup> in *avitaminosis of the B<sub>1</sub> type*,<sup>9</sup> and in *severe anemia*.<sup>10</sup> Active therapy quickly corrects the last named conditions while the "nephritic" heart abnormality subsides with a subsidence of the underlying disease. Acute pericardial effusions also may quickly subside.

In the summer of 1938, six years ago, Robert Gross of Boston successfully ligated the *patent ductus arteriosus* in a girl aged 7½ years.<sup>11</sup> Since that time many such cases have been operated upon, with two favorable results, first, relief of the strain on both ventricles which may be considerable in some cases of wide patency, and second, cure of some instances of complicating *Streptococcus viridans* endarteritis, with or without the aid of chemotherapy. The operation is not without its dangers and so is not lightly to be advised. However, we have in it the *first successful demonstration of the reversibility of congenital cardiovascular defects*, save for the extremely rare instances of spontaneous recovery—I have known of two instances of spontaneous thrombosis and closure of a patent ductus arteriosus. The most striking case of correction of serious heart strain due to wide ductus patency that I have seen was in a young girl with considerable cardiac enlargement and

typical mitral systolic and diastolic murmurs which several of us ascribed to a complication of mitral stenosis; when the ductus was ligated not only did the continuous murmur of the patency disappear but with it both mitral murmurs. This was reminiscent of our experience with the temporary murmurs and left ventricular dilatation in acute rheumatic myocarditis already referred to; the explanation was the same. Whether other congenital defects, such as coarctation of the aorta, may also eventually yield to advances in cardiovascular surgery we cannot yet say, but we may nurture some hope in view of past accomplishments.

During the twelve years prior to 1939 only one out of 250 cases of *subacute bacterial endocarditis* carefully studied in the Boston hospitals recovered and he succumbed to another illness a year later. Then five years ago sulfonamide therapy came into common usage and occasional, but still too rare, recoveries from this dread disease began to be encountered. The percentage of cures went up from less than one per cent to between five and ten, being slightly higher apparently among those who also received anticoagulant, in particular heparin, therapy.<sup>12</sup> And now new hope looms in the very recent massive treatment with penicillin. Far too little time has yet elapsed to speak with confidence but early results are more encouraging than were the early results of therapy with either the sulfonamides or with small doses of penicillin itself.

Now, finally, we come to the last but not least of the kinds of heart disease that is showing its reversibility, namely the *hypertensive heart*. We may have hypertension without heart disease just as we may have coronary artery disease without coronary heart disease, but in time if there is enough hypertension, especially of the diastolic level, the left ventricle enlarges and eventually fails. If any control of hypertension is possible or if the condition spontaneously recedes, we naturally hope that such control or recession will take place before there is irreparable damage to heart, arteries, or kidneys. But such damage to the heart which only a few years ago I myself, after two decades of experience with heart disease, considered irreparable and prone rather rapidly to evolve to a fatal outcome has, much to my surprise and delight, proved, in many cases at least, not to be irreparable, pro-

vided the hypertensive strain can be relieved. My erroneous conviction of a few years ago was based on the inadequacy to that date of medical therapy, including the best, and also on the insufficiency of the early attempts to bring the pressure down by sympathectomy in the region of the splanchnic nerves. We were still hoping for some chemical antidote.

Between two and three years ago I very slowly became aware of a change in some of the hypertensive patients under treatment at the Massachusetts General Hospital. The first clear suspicion that something really important was going on came from my review of the routine electrocardiograms, which job I assumed again in major part when my associates in the cardiac laboratory and clinics were called off to war. I noticed improvements in the appearance of the abnormal electrocardiograms of many of the hypertensive cases, sometimes a complete return to normal, something that I had not encountered before in twenty years of routine electrocardiographic analysis. On enquiry I discovered time after time that the cases showing these striking changes were invariably patients on whom Reginald Smithwick, one of our neurological surgeons, had carried out his technique of splanchnic resection newly developed by himself five years ago, an evolution from the former inadequate splanchnic resection currently practiced even in more recent years.<sup>13</sup> He denervates both above and below the diaphragm, on the average from D8 to L2 inclusive and always the great splanchnic. His success in appreciably influencing the blood pressure and thereby relieving the strain on the heart had risen to about 70 per cent from the former 15 per cent and the results were holding for months and now for years.<sup>14</sup>

In many cases Smithwick's sympathectomy for hypertension, though ideally carried out before the heart and arteries are damaged, has finally succeeded in reversing the last and most obstinate of all the types of heart disease to yield to treatment or to spontaneous improvement. Like the old days of the thyrotoxic heart so here too the very finding of heart trouble of hypertensive nature by electrocardiogram (which is the earliest evidence), or by X-ray, or by symptoms or signs of left ventricular failure (which are late evidence) are actually, like abnormal eyegrounds, an indication rather than a

contraindication for the operation of bilateral dorso-lumbar splanchnic resection in relatively young individuals with high diastolic pressures, unless the condition is very bad. Not only are lives saved and prolonged, but symptoms and signs are dissipated in a fair number of cases. Inverted *T* waves in Leads 1 and 4 may be reversed to normal and the *S-T* segments also straightened out, thus clearing the electrocardiographic evidence of so-called left ventricular "strain" consisting doubtless already of some reversible enlargement.<sup>15</sup> In some of the more advanced but not irreparable cases auscultatory signs of left ventricular weakness may clear up, including gallop rhythm, accentuation of the pulmonary second sound, and even rales at the lung bases, along with the symptom of dyspnea. There are frequent cases, however, that are too desperately ill for the operation and others that are failures. But the change from a decade ago is dramatic, for then they were essentially all failures.

Thus we have reviewed the procession of all the kinds of heart disease, many of them very serious, that were uniformly regarded a generation ago as hopeless and chronic conditions warranting a sentence of cardiac invalidism. In the short span of much less than one lifetime what a change has come in our understanding and treatment of these ills! Nature does much of the repair of damage, but our very recognition that this is so is almost as much of an advance as the actual medical and surgical innovations that have accomplished such miraculous things.

Where does this all lead us? In two directions: first and most obviously, along our continued optimistic search for still further chances and methods of reversing the evidences of heart disease, and second, and still more importantly, in our attacks on the causes of heart disease, such as hypertension, before the heart itself is affected. That is our ultimate goal in *cardiology, as in all fields of medicine, prevention rather than cure*.

#### ADDENDUM

My attention has been called by Dr. Boikan of Chicago to still another type of reversible heart disease mention of which I had inadvertently omitted in this paper, namely that of cardiac dilatation and failure secondary to the extreme tachycardia of certain arrhythmias. I do not believe that the relatively simple dis-

orders of rhythm such as premature beats (extrasystoles) and paroxysmal tachycardia, or indeed even *uncomplicated* auricular fibrillation or flutter, should be dignified by the label of heart disease, but there are rare instances of serious results from prolonged and excessive abnormal tachycardias in persons with otherwise normal hearts and these results or changes are in the majority of such cases reversible through the abolition of the arrhythmias by quinidine or by digitalis or even spontaneously. Perhaps the most striking and dramatic of this group is that of the infants pointed out by Hubbard a few years ago (Hubbard, J.P. Paroxysmal Tachycardia and Its Treatment in Young Infants. *Am. J. Dis. Child*, 1941, 61, 687.)

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## ABDOMINAL TUMORS OF QUESTIONABLE ORIGIN: ROENTGENOLOGICAL ASPECTS

ADOLPH HARTUNG, M.D.

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The term "tumor" strictly speaking signifies a neoplasm. According to its derivation it may apply to any swelling or protuberance and it is in this comprehensive sense that I propose to discuss the roentgen aspects of abdominal tumors of questionable origin. It is not my intention to present detailed roentgen findings in connection with such tumorous masses but rather to call attention to the various structures which produce them and show how roentgen studies can aid in their identification. In the absence of distinctive clinical or laboratory findings, recognition of their nature or source may be extremely difficult and the information which a roentgen examination can give frequently is of the utmost importance not only for diagnosis but to determine prognosis or therapy.

In order to determine which method of roentgen investigation is best adapted to the individual case, close co-operation of the clinician and roentgenologist is a prime essential. All too often the patient suspected of having a tumor is referred for a specified examination which can offer relatively little in solving the problem. Scout or plain films preferably preceded by fluoroscopy, should invariably constitute the first step in every such study. Occasionally this may give all of the desired information and render further roentgen investigation superfluous. In some cases scout films can rule out the probability of suspected organs being involved in the tumorous mass by presenting normal pictures of

those organs. In others, visualization of the mass may serve to identify its origin or nature by shape, location or consistency. Practically always this preliminary examination supplies positive or negative information which is of value in directing subsequent procedures along lines best suited for arriving at satisfactory conclusions.

Predominating symptoms and location of the mass usually influence the choice of additional roentgen examinations for obtaining the required information when the scout films fail to indicate the probable origin of the lesion. Contrast studies of the gastro-intestinal tract, pyelography, cholecystography, hepato-lienography, pneumoperitoneography and peri-renal air injections all offer possibilities for direct or differential diagnosis. Sometimes several of these methods must be used before definite conclusions can be drawn and even then the diagnosis may have to be arrived at by exclusion.

When tumors of questionable origin within the abdomen are associated with clinical or laboratory findings suggestive of involvement of a particular organ or structure the roentgen examination indicated for investigation of that part may present findings definitely implicating it as the seat of the lesion and possibly also demonstrating its nature. In the absence of such signs and failure of the method chosen to reveal pathology suspected, the findings may have to be evaluated in relation to other structures or to suggest which additional procedures can furnish more accurate information.

Gastro-intestinal studies in connection with obscure tumors may be of value not only for demonstrating their origin within the tract but for revealing pressure displacements, distortion or functional variations due to tumorous masses in adjacent structures. They can show developmental or acquired variations of parts of the tract which may lead to localized swellings or demonstrate accumulations within the tract simulating tumors. Pyelography and cholecystography may be of value in definitely excluding the kidney or gall bladder as probable sources of doubtful masses as well as in giving information when they are involved. Hepato-lienography, or visualization of the liver and spleen by the injection of thorotrast, can serve to demonstrate questionable enlargements of those organs and also reveal tumors within them. Harmful re-

sults from the prolonged retention of thorium have been reported for which reason use of this method ought to be restricted to cases of probable malignancy. Pneumoperitoneography suggests itself as offering special advantages where tumorous masses are associated with ascites because of the ease with which it could be utilized after paracentesis. In spite of its possibilities in selected cases it is not used to any great extent. Peri-renal air injection also has comparatively limited application except in connection with suspected supra-renal tumors.

Any of the abdominal structures can give rise to localized swellings which may require roentgen studies for accurate determination. Masses in the abdominal walls may owe their origin to bone involvement which may be disclosed in this way. Others may simulate intra-abdominal tumors which may require gastro-intestinal or other roentgen investigation for differential diagnosis.

Of the various intra-abdominal organs the pancreas not uncommonly produces tumors without distinctive clinical manifestations. Their location usually suggests gastro-intestinal studies and these often yield sufficiently characteristic findings to determine their identification. Pancreatic cysts, depending upon the site of origin in the head, body or tail of the organ, may cause duodenal or stomach pressure displacements or deformities which readily lead to their recognition. Other tumors of this organ may show similar changes but malignancies are more apt to produce irregular or invasion effects and be associated with obstructive phenomena.

Obscure tumors originating in the kidneys ordinarily suggest themselves as such by more or less typical masses in the flanks. Scout films may identify them by calcareous shadows conforming to the pelvis or calyces or by irregular calcifications such as may occur with tuberculous lesions or neoplasms. Doubt as to whether they actually are within the kidney can usually be settled by pyelography. With tumors on the right side presenting anteriorly such shadows may suggest cholecystographic studies which frequently give information of differential value. Occasionally predominating gastro-intestinal symptoms may call for investigation of that tract as a primary investigation in which case pressure displacements may give a clue to the real origin of the tumorous masses. Rarely peri-

renal air injections may be indicated to distinguish between kidney and supra-renal tumors.

Tumors within the liver may cause more or less generalized enlargement of that organ or localized masses with or without such increase in size. In either case a preliminary roentgen examination may give information of value by revealing calcifications or other density variations. Ecchinococcus cysts or abscesses may occasionally be discovered in this way. Demonstrable changes in relation to the diaphragm may aid in the diagnosis. Gastro-intestinal studies may show pressure changes due to liver enlargement or demonstrate unsuspected primary malignancies in the tract of which the liver tumor may be a metastatic manifestation. With probable malignancy, be it primary or secondary, thorotrast visualization seems justifiable; it can supply valuable data for prognosis or therapy. Right upper quadrant tumors arising from the biliary tract may call for cholecystographic or gastro-intestinal examination for differential diagnosis but the value of such studies usually depends upon exclusion rather than on positive findings.

Splenic enlargements usually present sufficient physical characteristics to lead to their detection by palpation and percussion even in the absence of clinical or laboratory findings pointing to them. Occasionally under the latter circumstances, especially where the enlargement has occurred in an atypical manner, roentgen studies may be essential to establish the nature of the swelling. It has been our experience that tumors of other origin are mistaken for enlarged spleen much oftener than the reverse. Scout films frequently remove any doubt by visualizing the normal or abnormal spleen. Sometimes gastro-intestinal studies help to identify the organ by demonstrating displacement or compression deformities. Pyelography can furnish differential information about the origin of the mass. Although thorotrast visualization can give unequivocal evidence, its use is seldom necessary.

Abdominal swellings of doubtful origin may originate in connection with the gastro-intestinal tract and roentgen studies are of unquestioned value for localizing them and determining their nature. Localized accumulations of extraneous matter within the tract such as bezoars or fecaliths may simulate tumors as may also congenital or acquired variations of the tract especially when distended with gas or other content.

Of structures other than those already given consideration which may cause tumorous masses and in which roentgen findings can give distinctive information mention should be made of abdominal aneurysms with atheromatous changes in the walls and calcified lymph nodes. These can usually be identified by the more or less characteristic distribution of the lime salts contained in them and by their location. Scout films ordinarily provide all of the information required for their recognition but occasionally pyelography, cholecystography or gastro-intestinal studies may be needed for excluding the possibility of other origin. Calcified cysts cast distinctive shadows on plain films but additional studies are necessary to determine in which structures these originate.

Obscure abdominal tumors other than those discussed can usually be definitely identified as to the site of origin by one or the other roentgen studies mentioned but diagnostic conclusions relative to their nature must be arrived at by exclusion from the information obtained or based on other methods of examination. In the case of retro-peritoneal tumors little more than localization, usually demonstrable by pressure displacement of adjacent organs can be obtained from the roentgen investigation. Enlarged lymph nodes due to lymphogranulomatosis, metastasis, or other cause should always be thought of when roentgen findings present which seem to be at variance with the clinical data and all means including test irradiations should be used in the attempt to make a correct diagnosis. Tumors of neurogenic origin may develop as independent masses or in connection with any of the viscera, but little other than localization can be ascertained from roentgen studies in connection with them. A diagnosis of cysts of the mesentery or omentum may also have to be based on exclusion rather than on positive findings.

This discussion is not intended to include tumorous masses in the pelvis. Not infrequently however tumors arising there may first attract attention to themselves by swellings of a doubtful nature in the abdomen. If they are visible on plain films, their shape, location or consistency may suggest their nature and probable source of origin. Occasionally colon studies may help in definitely demonstrating their source of origin. In this connection it may be well to remember that a dilated urinary bladder may at

times project well within the abdomen and simulate a tumor. Realization of the possibility is usually sufficient to avoid a faulty diagnosis.

In conclusion it may be stated:

1. That roentgen examinations are of definite value for ascertaining the nature or origin of practically all tumorous masses in the abdomen of questionable origin.
2. That the nature of such examinations should be determined by close cooperation of the clinician and roentgenologist and should be based on preliminary fluoroscopy or scout films in addition to existing symptoms, signs or laboratory findings.
3. That findings from such examinations may aid greatly not only in arriving at a correct diagnosis but also in determining prognosis or therapy.

#### DISCUSSION

Dr. Harry A. Olin (Chicago): Dr. Hartung, do you remember, you showed one film that had a branching calculus near the spine and there was another shadow lateral to it. You suspected that it was gall bladder pathology, considering the symptoms. I thought that one should weigh more heavily towards the kidney because the shape of the shadow was more in line with the branching calculus. Don't you think that the hunch would be to do a retrograde or rather an intravenous rather than a perirenal?

Dr. Hartung: That wasn't a branching. That was almost a square block. There wasn't any branching.

Dr. Olin: From here it looked like branching.

Dr. Hartung: In all of these cases I did not mention all of the different examinations that were made. Many of those had a good deal more than I showed. I simply tried to bring out what finally demonstrated the diagnosis. That particular one had almost a square shadow and not one that fitted with calculus at all.

Dr. Olin: What did those shadows fit into? Was it a cystic tumor of the kidney?

Dr. Hartung: It was a cystic tumor of the kidney, yes.

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Industrial employment must be deferred for job applicants with active tuberculosis. Since the employer has an obligation to the community with respect to rehabilitation, activity of tuberculosis lesions developing during employment should indicate a furlough for treatment; not termination of employment. The criteria for the recurrence of activity should include not only roentgenological evidence, but also increases in sedimentation rate or febrile reaction. Although these patients might not be passing infection to others at the time, employment would be against their own best interests and a serious potential danger to others. Wayne L. Rutter, M. D. and J. W. Dugger, M. D. *Indus. Med.* Jan. 1944.

## HEALTH EXAMINATION FOR SCHOOL CHILDREN REQUIRED BY LAW

RAY O. DUNCAN

State Director of Health and Physical Education  
SPRINGFIELD

The Sixty-third General Assembly passed a law which provides opportunity for closer cooperation between the medical profession and the educators of the state. Section 4 of the new law states:

"As soon as practicable, physical examinations, as prescribed by the Superintendent of Public Instruction, with the advice and aid of the Department of Public Health, shall be required of all pupils in the public elementary and secondary schools, except as herein after provided, immediately prior to or upon their entrance into the first grade, and not less than every fourth year thereafter. Additional health examinations of pupils may be required when deemed necessary by the school authorities.

"Such examinations shall be made by physicians and dentists licensed to practice in the State. Cumulative records of such examinations shall be kept by the school authorities.

"Individual pupils objecting to physical examinations on constitutional grounds shall not be required to submit themselves to such examinations, if they present to the boards of directors, boards of inspectors, boards of education, or Teachers College Board, a statement of such objection signed by a parent or guardian of the child. Exempting a pupil from the physical examination does not exempt him from required participation in the program of physical education and training provided in this Act."

Health has always been regarded as the first cardinal principle of education, yet very little has been done about it in the schools except for the varsity athlete. It is impossible for the school authorities to provide for the educational needs of a pupil without knowing his health status. Our plan is to develop a wholesome attitude in the school child toward the doctor and dentist which will result in periodic visits to his doctor and dentist.

We realize that due to the present shortage of physicians it will be impossible for the new law to operate 100 per cent immediately. However, we are working on a long-time program and the important thing to be done at the present is to acquaint the physicians, dentists, and parents

with the new law. Doctors and dentists can help in the development of this program by filling out the health card so that it may be filed with the student's record at the school. When the student is re-examined at any age, the results of this examination can be recorded on the original card. In order to meet the legal requirement, a child would be examined prior to entrance into the first grade and at least every four years thereafter. This would result in four examinations during the twelve years that a child is in elementary and high school. These examinations might be spaced as follows: 1st, 4th, 8th, and 12th grades.

The school authorities will follow up each case of remedial defects and encourage the parents to have the corrections made by the family physician or dentist.

The law also requires a daily physical education program for each pupil in the public schools, and a modified course for those pupils whose physical or emotional condition prevents their participation in the regular program. This requires close cooperation between the school physical education director and the physician. A good physical education program will be geared to provide for the individual needs of the pupils. The contributions which physical education make to the growth and development of children are mental and social as well as physical. For pupils who cannot take the strenuous program, the activities may be recreational in nature. A physical education program designed to meet the needs of all the pupils would provide vigorous activities for the normal students, modified activities for those who could not participate in the vigorous program, and a rest period for the students whom the physician recommends for no physical exercise at all.

Many people think of physical education as merely vigorous exercise. We hope that physicians in the state will realize that the physical education program may be mild, moderate, or vigorous, and that in cases of physical defects, the physician should recommend to the school authorities what type of activities the pupil should not participate in and what type he might take to benefit him. In these rare cases where the physician is of the opinion that the student would not be benefited by any type of physical education program, the school authorities should

follow the recommendation of the physician and excuse the student entirely from physical education.

The new law is not a step toward socialized medicine. We are not advocating such practice. We want every school child in Illinois to be examined by a physician regularly. In some communities this is done by the family physician and paid for by the parents. In other localities there are other plans in operation whereby school or county authorities provide for the examination. The important thing regardless of the plan used is for the examination to be conducted by licensed physicians and dentists and made an educational experience in the life of the child. We hope to teach all children to look upon the physician and dentist as a friend, and we shall encourage all parents who do not have a family physician to secure one and to have their children examined periodically.

We are desirous of establishing close cooperation between the schools and the medical profession in order to do a better job of providing for the health, happiness and efficiency of the children of the State of Illinois.

#### ICE AS A LOCAL ANESTHETIC

For home use or emergencies or when the area is badly infected and an injection of novocaine is unwise, or where ethyl chloride causes too much pain because of its burning sensations, ice is the method of choice for anesthesia.

I have found ice to be useful in the following types of cases:

1. Infected toenails: Keep ice in sterile gauze to a previously sterilized skin for twenty minutes.

2. Carbuncle or boil: Ice works best in these cases; keep ice on area for twenty minutes.

3. Paronychia: Keep ice on for ten minutes.

4. Dislocations of wrists, fingers, and elbow: Keep ice on area with a little pressure, for twenty to thirty minutes.

5. Abscesses anywhere on or near the skin surface: Keep ice on area between fifteen and twenty minutes.

6. Skin growths (nevi and the like): Keep ice on areas for ten minutes and remove growth by knife or cautery. — *Halley H. Friederwitzer, Medical Record, January, 109: 42-43, 1944.*

#### PROTHROMBIN LEVEL SHOULD BE MEASURED WHEN SALICYLATE THERAPY IS USED

The level (or activity) of prothrombin (the clotting factor in the blood) should be determined by estimation of the prothrombin time when salicylate (the best known derivative in this group being aspirin) treatment is used, Shepard Shapiro, M.D., New York, advises in *The Journal of the American Medical Association* for June 24. Dr. Shapiro explains that recent investigations have shown that salicylic acid can induce prothrombinopenia (diminished prothrombin in the blood) and that the condition can be prevented by vitamin K.

"My purpose in the present communication," he says, "is to report the results of studies on the protective action of synthetic vitamin K against the prothrombinopenia produced by the more continued use of salicylate. Seventeen adults varying in ages between 22 and 76 were studied. In most of the instances the salicylate was used for therapeutic [treatment] purposes. . . . In each subject the nutritional state was satisfactory and the food intake was adequate. The prothrombin time was normal during the control period in every case. . . ."

Aspirin was used exclusively in the study. It and synthetic vitamin K were given by mouth in three or four equally divided doses in most cases.

Dr. Shapiro says that the study indicates that prolongation of the prothrombin time is the most common effect of salicylate treatment for continued periods of time and that vitamin K will protect against it.

Because there are no fixed levels of prothrombinopenia at which bleeding is known to be established, he advises that prolonged prothrombin time after salicylates should be restored to normal by administration of vitamin K and, when necessary, vitamin C. The latter may be needed when such factors as fever, toxemia and limited nutritional intake complicate the situation.

"It has not been possible to establish in man a fixed dosage of synthetic vitamin K which will counteract the prothrombinopenia inducing effect of a given quantity of salicylate," he says. It appears that generally approximately 1 mg. of synthetic vitamin K is required to neutralize the effect of 1 Gm. of aspirin.

# House of Delegates

## FIRST SESSION

(Tuesday Afternoon, May 16, 1944)

The first session of the House of Delegates of the Illinois State Medical Society was held in the Palmer House, Chicago, on Tuesday, May 16, 1944.

The meeting was called to order at 3:37 P.M. by the Acting President, Dr. Robert S. Berghoff, Chicago.

DR. BERGHOFF: As a matter of introduction I remind you that when our dearly beloved friend, Dr. George Post, died very suddenly a few months ago, according to the constitution the First Vice-President automatically assumed the duties and obligations of the president. Accordingly, following Dr. George Post's death his duties and responsibilities fell upon my shoulders, and may I say to you in one breath before we start this first session of the House of Delegates that I will ask you to bear with me and be patient with me because not having had the advantage of the experience of the President-elect or of the presidency, this supervision of the very important task of the first session of the House of Delegates is new to me. In return for your patience and forbearance I shall conduct this session and your closing session with deliberation, with justice and to the best of my ability.

Your Council after due deliberation decided that this first session of the House of Delegates would be the proper time and place for a brief tribute to both Dr. Post and Dr. Nagel who worked so long and so faithfully for organized medicine in the State of Illinois. Accordingly and again following the instructions of your Council, a very brief ceremony has been prepared to precede your official session of the House of Delegates today and may I ask you to begin this tribute by standing in silence for one minute, a tribute to both of these grand men.

(The House stood for one minute)

It will be my privilege to call first upon Dr. Oscar Hawkinson, President of the Chicago Medical Society, who will give a short tribute to Dr. George Post.

DR. OSCAR HAWKINSON: George Post was my friend for thirty years and many of these, my own personal physician; known, loved and respected for the great qualities of heart and mind with which he was so richly endowed.

David Starr Jordan has said that a good citizen is one who is able to take care of himself and then has something for the common good. It has been many times said that no more fulsome praise or higher compliment could be rendered anyone. There is perhaps, nothing one can say that more fully characterizes our friend, so recently passed away, than that he was a good citizen; anything more would be in the nature of gilding the lily.

Dr. Post came from a family in which were many medical men: his father, grandfather, one uncle all being physicians and he had trained his only son to follow in his footsteps. He studied at the University of Illinois where his father was a member of the faculty, coming out in Medicine with the class of 1909. Graduating with honor, he was chosen valedictorian of his class. His intern years were spent at Augustana Hospital where he soon came to the notice of the great chief, the late A. J. Ochsner. He also studied in Vienna and Berlin and was later associated with his father in the practice of medicine until ill health compelled his father to retire.

Richly blessed with natural gifts, study and discipline served to develop a personality, distinguished for a fine understanding of passing events as well as fine judgment of his associates, their qualities and abilities. He was a good physician in the highest sense of the word, having the trust and confidence of a host of patients over many years. A good surgeon and a good teacher of surgery, for many years serving as professor of surgery in his Alma Mater. During his formative years, he was fortunate in being able to develop artistic and aesthetic characteristics. From his parents he inherited a great love of books and music. Not known to many of his friends, study and application made him a skilled pianist, a skill in which he could indulge his fancy when worry, distress and the burden of the day might seem overwhelming and melodies rich in golden beauty, might bring soothing and comfort. He was not, in any way, given to exhibition of emotion nor did he love eulogies of any kind. He did his day's work in the cool, careful, conscientious manner of one who has learned that it is easier to perform a difficult task than try to explain to himself why this task was not done. His

most outstanding characteristic was a stubborn honesty of purpose; a straight path of honesty from which he was never known to deviate. This, with integrity of character, industry and faithfulness, made of him a great tower of strength.

He became interested in affairs of Medicine almost twenty years ago when Humiston was a great influence in this Society and VanDerslice vied with him in efforts to promote the general welfare. He was soon marked as one who would sometime carry great weight in our Councils. Dr. Post served our Medical organizations loyally and well for many years; first, as Councilor of the Chicago Medical Society, later as its President and, at the time of his death, he had in his grasp the highest honor which the Illinois State Medical Society can bestow upon one of its members, that of President.

Throughout these years, he labored faithfully on many committees. He was Chairman of the Resolutions Committee of the Council of the Chicago Medical Society, an active member of the Advisory Committee on the Medical Care of the Indigent and Recipients of Unemployment Relief, of which Committee Charles Phifer is Chairman and which Committee has done much for the medical men of our city and much more for the unfortunate poor. He was a member of the Cook County Committee on Procurement and Assignment as well as a member of our Appeal Board.

During the years of his association with his father, he became affiliated with the staff of St. Anne's Hospital and, along with his love of knowledge, there was also an interest in the welfare of others and so, for a long time, he held, once each week, a pathological conference with his interns. After his father's retirement, he transferred his hospital staff appointment to the West Suburban where, in addition to his many heavy duties, he found time to teach classes in surgical nursing. Never was he so busy or pressed for time that he would not stop to discuss plans and efforts that might make the world just a little better.

And so his life was passed, going quickly from one duty to another until, in the midst of the busiest period of his life, death overtook him. And so, our lives do pass by as a tale that is told, each passing twenty-four hours bringing us one day nearer to the time when man goeth to his long home and, if this Eternity be of such transcendent beauty of which Preachers tell, one more added joy will be to meet again great souls like George Post.

DR. BERGHOFF: I am happy next to call upon another man who will pay tribute to the memory of Dr. John S. Nagel, Dr. G. Henry Mundt.

DR. G. HENRY MUNDT: This time of the House of Delegates of the Illinois State Medical Society is dedicated to the memory of the late Dr. John S. Nagel. And it is right and proper that we so dedicate it.

Here was a man who was a man. He had the courage of his convictions, and never hesitated to express himself to further those convictions. He was a valiant knight in the promotion of anything that he thought

was best for medicine, always remembering that the welfare of the general public was the best interest of medicine.

He was for many years the watchdog of the treasury of the Illinois State Medical Society. Any man knowing the functioning of the Council will corroborate this statement. For this we are indebted to the late Dr. Nagel.

Here was a man who was a very difficult individual to meet in debate. He backed his argument by facts, he had an excellent memory for details, and above all his argument was always short and to the point and no one was ever left in doubt about what he was advocating. He was honest.

I am certain that none of us would call Dr. Nagel soft but his tenderness was well exemplified by his intense interest in the Medical Benevolence Plan of our Society which he advocated and fostered.

Who am I to praise Dr. Nagel? It is the one thing that he would not want. But he was my very fine friend and I respect his memory very highly.

May I ask again that we rise in respect to the memory of the late John Stephan Nagel.

DR. BERGHOFF: In the past year we suffered the loss of two more men, two past Presidents, Philip H. Kreuscher and Jacob C. Krafft.

THE ACTING PRESIDENT: The first order of business will be the report of the Credentials Committee.

DR. E. S. HAMILTON, Kankakee: We have certified 62 delegates from down state, 47 from the Chicago Medical Society, and 14 members of the Council, a total of 123. I move you, that this constitute for this meeting the official list of the House of Delegates. (Motion seconded by Dr. I. H. Neece, Decatur, and carried).

THE ACTING PRESIDENT: The next order of business is the roll call.

DR. E. H. WELD, Rockford: I move you, that we accept the attendance slips as the official roll call. (Motion seconded by Dr. E. H. Ochsner, Chicago, and carried).

THE ACTING PRESIDENT: The next item of business is the approval of the minutes of the last annual session as published in the July and August 1943 Illinois Medical Journal.

DR. W. E. KITTLER, Rochelle: I move that the minutes as published in July and August 1943 Illinois Medical Journal be approved. (Motion seconded by Dr. Harlan English, Danville, and carried).

THE ACTING PRESIDENT: The following Reference Committees have been appointed:

*Committee on Credentials:* Drs. E. S. Hamilton, Fred H. Muller, and Karl Rieger.

*Committee on Attendance:* Drs. Warren Furey, J. H. Long, E. C. Kelly, H. K. Scatliff, and S. M. Goldberger.

*Committee on Reports of Officers:* Drs. James H. Hutton, Frank Deneen, L. S. Reavley, and Charles H. Drucek, Jr.

*Committee on Reports of Councilors:* Drs. L. O. Frech, H. J. Dooley, G. L. Kaufman, and J. C. Redington.

*Committee on Reports of Standing Committees:* Drs. R. K. Packard, F. O. Fredrickson, C. W. Carter and C. M. Fleming.

*Committee on Reports of Council Committees:*

*Sub-Committee "A"* to receive reports from the Educational, Scientific Service, Post-Graduate, Medical Economics, Fifty Year Club Committees: Drs. Mather Pfeiffenberger, T. B. Williamson, A. M. Vaughn and S. D. Zaph.

*Sub-Committee "B"* to receive report from Advisory Committee on Medical Care for Public Assistance Recipients: Drs. G. Henry Mundt, I. S. Trostler, A. H. Bitter and Harlan English.

*Sub-Committee "C"* to receive reports from Industrial Health, Ethical Relations, War Participation, and Maternal Welfare Committees: Drs. P. J. McDermott, W. H. Newcomb, J. J. Pflock, and O. W. Rest.

*Sub-Committee "D"* to receive reports from Cancer Control, Advisory Committee on Rehabilitation, Venereal Disease Control and Archives Committees: Drs. Oscar Hawkinson, Craig Butler, E. E. Davis, and H. N. Fisher.

*Committee on Reports of Editor, Committee on Scientific Work, President of the Woman's Auxiliary, and the Advisory Committee on Rehabilitation, Venereal Disease Control and Archives Committee:* Drs. A. B. Owen, C. H. Hulick, N. S. Davis III, and Albert Mickow.

*Committee to receive the report of the Committee on Constitution and By-Laws:* Drs. Robert H. Hayes, J. P. Simonds, Ed Bechtold, and F. M. Hagans.

*Committee on Miscellaneous Business,* to report on other matters of business referred by the Acting President: Drs. W. E. Kittler, R. K. Campbell, and Harold W. Miller.

*Committee on Resolutions:* Drs. Frank P. Hammond, Charles Papik, J. H. Edgecomb, and D. B. Freeman.

THE ACTING PRESIDENT: The next order of business is the matter of Annual Reports. These reports have been printed in the Handbook and can be supplemented if you so desire. Each report was called for in turn.

#### REPORT OF THE PRESIDENT-ELECT

To the Members of The House of Delegates:

As President-Elect, I have attended all of the meetings of the Council, and can report that the Council, under the leadership of its Chairman and Secretary, is doing excellent work. To my own observation, the Council has constantly increased the efficiency with which it transacts the Society's affairs.

In addition, I have had the privilege of being a member of several committees, namely: The Executive Committee of the Council, The Advisory Committee on Rehabilitation, and the Committee on Medical Care for Public Assistance Recipients. These are reported under separate headings, and I can only add that the

problems of the medical men who are attempting to do their duty as citizens and also as members of the State Society, are many and difficult. I feel that the complicated situations which have to be met are being handled satisfactorily, and that our contacts with outside groups have resulted in their having an increased knowledge of our problems and ideas, and that we are slowly — but surely — gaining their confidence. We are, therefore, able to exert more influence for the benefit of both the Medical Society and the general public.

I have also on several occasions, spoken in various sections of the state — usually pinch-hitting for Dr. Post during his recent illness. At these meetings, the absence of the younger men is particularly noticeable, excepting a few who are home on leave from the Service.

The loss of Dr. Post and Dr. Nagel is a double blow to the Society. Each one had a great deal of experience and knowledge, which are now lost to us. They will be difficult to replace.

For the coming year, we will have new and perhaps quite different situations to face, as an organization, but with the support of the membership, I feel that we will be able to solve them — as well as we have thus far — other similar situations which have arisen in the past.

Respectfully submitted,

E. P. COLEMAN, M.D.,

*President-Elect.*

#### REPORT OF THE SECRETARY

To The Members of The House of Delegates:

This is the third annual meeting of our Society since the entrance of the United States into World War II. Consequently once more the annual report of your secretary will contain matters pertaining to medicine in the war effort especially pertaining to the present day problems of the profession within this state. During the past fiscal year it has been necessary for your secretary to make frequent trips to Chicago, to care for the many duties in both the society office at 30 North Michigan Avenue and the office of the Chicago Procurement and Assignment Service at 6 North Michigan.

#### PROCUREMENT AND ASSIGNMENT SERVICE

With a further increase in the number of Illinois physicians entering service, our problems have increased materially. We have had to assume more responsibility in the many problems dealing with the relocation of physicians. With a definite shortage in many parts of the state it is becoming more difficult to ask busy physicians to leave their present practices and go to a place where a physician is needed urgently, yet this has been done many times during the past year.

The Procurement and Assignment Service for Physicians has functioned well throughout the state at both the county and state levels. The burden of classifying physicians as "essential" or "available" is primarily the responsibility of the local county committees, although their decision in the matter is not necessarily

final. However, it is rare that the state committee finds it necessary to reverse the county classification, and then only when additional information pertaining to the individual case has been received from Washington or through additional sources of information which must be used occasionally.

A considerable amount of confusion has resulted where a physician had offered his services, was examined and disqualified for service, and in some cases told by the examining physician that he would not be bothered again as he could not meet the minimum requirements. Many of these physicians with this information took on additional obligations (perhaps the purchase of a new home, the enlarging of his practice by agreeing to care for certain groups of industrial workers, etc.) then perhaps six months later, a request would come from Washington that the physician again visit the Officer Procurement District office since requirements had been lowered, and make a new application and take a new physical examination.

In view of the fact that the increasing size of the Army and Navy necessitates more physicians in the services, and because it is becoming more difficult each month to make physicians available, the Surgeons General of the Army, Navy and Public Health Service agreed to review many cases of so-called borderline rejections. Some 19,000 of these cases were reviewed critically and it was decided to ask approximately 2,200 physicians to re-apply for a commission. Of course, many of these men reside in Illinois.

Your secretary as State Chairman for Procurement and Assignment Service for Physicians received many calls and letters from physicians who had received the notice to re-apply. Invariably they wanted to know why they had received such a notice when they had been told they could not possibly qualify for a commission due to their inability to meet the minimum standards. It is unfortunate indeed that some of the examiners had emphasized their statement as to a physician not being able to meet these requirements and that they would not be required to re-apply at some future date. The physical standards may be lowered at any time, and complete immunity cannot be given to any physician within the age limits for service.

We were informed recently that both the Army and Navy endeavor in every way possible to place a physician commissioned for service in a place where his training and experience can be utilized to the best advantage. We were told that as of December 1, 1943, there were 6.1 physicians per thousand troops with our overseas forces, and in the training camps and hospitals within this country, 4.6 per thousand. Formerly it was thought that they should have 7 to 7.5 physicians per thousand men, but with the increasing shortage of available physicians, these figures were lowered.

Some serious problems have arisen in Illinois in communities where elderly physicians were left to care for the civilian needs, then something happened to those endeavoring to carry on, and the community is suddenly without medical care. Many times younger physicians desirous of procuring a commission and who

believe they can meet the physical standards, sell their practices and then, if unacceptable, have no place to go, and are willing to be relocated. Lists of disqualified physicians are sent to this office regularly from Washington and we invariably send a letter to see if they are interested in locating in one of our designated critical areas. This has been done many times during the past year.

Some confusion has arisen on the part of younger physicians who have been made available but for some reason or other have failed to apply for a commission. When this information is returned to Procurement and Assignment Service, a copy is also sent to State Selective Service by either the army or navy Procurement District. As a consequence, the physician may be reclassified and subjected to induction. This is not our ruling but an order given which must be complied with in all cases. Fortunately when physicians are inducted following the required basic "boot" training, they become eligible to apply for a commission and transfer to the medical corps if acceptable.

In the relocation work we have encountered some unusual obstacles which have caused much trouble. In several instances no less than a dozen physicians have gone into a community where a physician is needed, only to find the mayor, city council, and (or) others, too demanding. One example is a city of some 3,000 where three physicians were carrying on until one became seriously ill from an infectious disease, one had a heart attack, and the third, an elderly man, was unable to carry the load. Several physicians who have been checked in accordance with instructions from the Directing Board of Procurement and Assignment Service, went to the community to talk with the mayor and others, but they were told they must move out as soon as the war ends and when the one younger physician formerly practicing there, returns. There is no assurance that he desires to return, yet the investigating physicians were to do exactly as they were ordered to do if they desired to locate in this community.

In another community, a younger physician entered service early in the war, and told us confidentially that he had no desire to return to his former location, but he did not want the home folks to get that information. After sending more than a dozen physicians to investigate the relocation possibility with no one actually going there, we wrote to each of them willing to practice in the community to get their story. We were informed that the city council had its attorney draw up a legal contract whereby the relocating physician agreed to leave the community immediately upon the end of the war. All of these men, having a satisfactory practice now, were not desirous of the prospect of looking for a new location later on.

The State Committee on Procurement and Assignment Service for physicians at a recent meeting, instructed your secretary to thank the many county committees, the members of our Council and the many others who have been asked so many times to furnish information requested by this office, and other pertinent data which has aided the committee in making the proper classification of the many physicians.

## THE SOCIETY

Although this report is being prepared early in April, we will have accurate figures on the total membership as of April 30, 1944 (the end of the fiscal year in this Society), at this time there has been a gain in membership during the year of approximately 50 members.

Reports from individual Councilors as published in this Handbook will show that many meetings have been held throughout the State during the past year. Although in many instances there has been a reduction in the attendance due principally to the number of members with the armed forces, yet the interest has been well maintained and it is quite obvious that physicians go to meetings because they expect to derive definite benefits from the associations.

In accordance with action taken by the House of Delegates a year ago, dues of members in service have been remitted and we have endeavored to see that every member receives his Journal wherever he may be. Frequently we receive letters from some of these men in service stating that they have failed to receive their Journal, yet it is through no fault of ours. We are frequently told that several consecutive issues are received at one time rather than at monthly intervals.

The financial status is shown in the financial report of the Secretary-Treasurer which is a part of this report. Although the income from members has been reduced through the remittance of dues of members in service, yet the accumulation over a period of years and the proper investments on the part of the Council have permitted many activities being carried on which otherwise would have had to be eliminated for the duration.

We are pleased to report that following the filing of an application in Washington some three years ago recommending to the Commission of Internal Revenue that social security taxation should not be assessed against this Society, we have received word that this has been approved. Several months ago a letter was received from the Commissioner in which he stated that it had been ruled that our organization was "organized not for profit" and as an educational and scientific organization would be considered exempt from this taxation. The Society has paid certain State taxes under protest and an application for a refund of this sum has been filed in Springfield following the decision of the Commissioner of Internal Revenue.

Physicians throughout the country have been aroused at the attempt to develop a plan for providing medical care with special taxation as was incorporated in the Wagner-Murray-Dingell bill. The American Bar Association and many other groups openly opposed this and similar types of legislation, and we all hope that the private practice of medicine (better known as American Medicine) may be retained. Physicians trained and who have been practicing under this American form, have given the best medical care to the armed forces that has been received in time of war, and superior to that given anywhere else in the world today.

The Surgeons General of the Army and Navy have praised the medical care programs in both branches of the armed forces repeatedly. Many of the outstanding generals and admirals have stated that without the fine services of the medical corps many of the successful campaigns would have been impossible. Is this not a fine tribute to American Medicine, and another reason why the private practice as we have known it should be maintained?

## THE COUNCIL

During the past year the Council has met approximately every two months. At each meeting many problems have been scheduled on the agenda for careful consideration. It is rare indeed that a single member is absent from any of the meetings, and then only for a good reason. The work of the Council has been increasing each year over a long period of time. It has required a great sacrifice on the part of the members to get to these meetings and carry on their prescribed Councilor duties. Dr. Roland R. Cross, as Director of the Department of Public Health, has attended nearly all meetings of the Council, and has been highly co-operative at all times, seeking the advice of the Council before recommending any changes in the many duties of his office.

A complete review of the work of the Council during the past year is printed in this issue as presented by the chairman, Percy E. Hopkins. It is hoped that every member of the House of Delegates as well as our membership as a whole, will read it carefully. Few outside of the Council membership realize the vast amount of work that is brought up regularly for consideration at the meetings. Many subjects require the appointment of special committees to investigate thoroughly, then report back at a later meeting.

## WORK OF COUNCIL COMMITTEES

Some new committees have been named during the past year and those organized previously have had many duties referred to them.

An Advisory Committee on Rehabilitation was appointed at the request of State officials. This has to do with problems concerning the rehabilitation of men receiving honorable discharges from the armed forces for disabilities which are not service connected. This is somewhat different from the many rehabilitation programs in that only State funds are to be used for the medical and surgical care needed to rehabilitate these men. A fee schedule similar to that approved by the Veterans' Administration a few years ago has been submitted as the schedule for services to be rendered to these men, and this schedule has been approved recently by the Council.

An article appeared in the April 1944 issue of the Illinois Medical Journal written by Hermon H. Cole, liaison official in this rehabilitation program, giving complete details which we hope every physician in Illinois will read.

Another committee was appointed to work for the best interests of the medical profession in connection with the Maternity and Infant Care Program for the wives and children of those men in the lower service

grades. Much has been accomplished by this committee, and it too has been publicized in our Journal. Although there are still some objectionable features in this program, we believe that it is advisable for physicians who desire to do so, to co-operate in giving adequate obstetric and infant care to these people — especially those unable to pay for the necessary services personally because of the fact that the wage earner of the family is in service. At the present time Illinois physicians rendering this service receive \$50.00 for prenatal care, delivery service and necessary post-natal care. There are provisions for payment to consultants, anesthetists, and for complicated cases where care is unusually prolonged.

The American Medical Association, one year ago through action of the House of Delegates, created a Council on Medical Service and Public Relations. This Council after its organization, asked all State Societies to name a similar committee to co-operate with the Council, then asked that such a committee be named at the county level to aid in procuring information and to receive all releases from the A.M.A. Council. When this Council was formed, delegates from various parts of the country urged that a Washington office be opened so that adequately informed people would be on hand to give information to legislators or others desiring it, on various problems in connection with medical care. Likewise through such an office it would be a relatively simple task to keep all state and county societies informed of current trends on the part of legislators or legislative activities of general interest to the medical profession.

When the Council on Medical Service and Public Relations failed to open a Washington office, several groups in various parts of the country got together and formed their own organizations, asking other societies to join them in opening a Washington office for the several purposes already mentioned. At least three of these organizations which have been called to our attention, are desirous of operating on a nation-wide basis, to solicit members willing to pay annual dues, or soliciting other societies to appropriate funds to join them in their venture.

In accordance with instructions from the Council your secretary sent a letter to all county society secretaries recommending that no action be taken until after the annual meetings of our Society and the A. M. A. when this problem will be presented before the House of Delegates of each organization. In this Society, the House of Delegates is the policy-making body, and whatever action is taken on this (as well as other current problems) will be the policy of the Illinois State Medical Society.

For your information, the Journal of the American Medical Association under date of April 8, 1944, officially announced the opening of a Washington office on April 3rd. The office is located in Suite 900, Columbia Medical Building, 1835 I Street, N. W., Washington. The Journal goes on to state: "The office will be under the direction of the Council and Secretary; in charge for the time being will be Dr. Joseph S.

Lawrence of Albany, New York, who has represented the New York State Medical Society in Albany for over twenty years."

This action on the part of the American Medical Association in all likelihood will settle one of the major controversies which have arisen throughout the country since the last meeting of the A.M.A. House of Delegates, when no definite action was taken on the resolutions urging that a Washington information office be established at once. It is quite obvious to all, that if it is desirable to have an office in Washington where legislators and others may get adequate information on any phase of medical care, the American Medical Association should supervise this office. We naturally believe that the opening of this Washington office by the A. M. A. will be of much value to the medical profession as a whole, and will stop various new groups desirous of having a Washington office to give this type of information and service, from further action.

The War Participation Committee, organized to co-operate with the A. M. A. committee of similar character, has been of service in the consideration of various problems in connection with physicians entering military service, the replacement of physicians in communities with a definite shortage, and likewise has met regularly with the State Committee on Procurement and Assignment. The committee has been of much service in aiding in the solution of unusual problems which have been presented to that group.

As the war goes on there is bound to be an increase in the number of Physicians entering service. There will be more communities deprived of resident physicians. This committee is endeavoring in every way possible to aid in enlarging the fields of work of physicians remaining in civilian practice so that they may absorb, for the duration, the work of those physicians who have been called into service.

The Post-Graduate Committee during the past fiscal year, has scheduled four conferences in various parts of the state. Each of these as you will note from the report of this Committee, has been well attended and the interest at the sessions has been unusually good. Many requests have been received urging that these conferences be continued during another year. It has been the policy of the Post-Graduate Committee to schedule subjects of general interest at the moment, then at each conference a roundtable discussion period is arranged so that the speaker can discuss problems, answer questions, or elaborate on various phases of the subject as may be desired.

#### DEATH OF PROMINENT MEMBERS

During the past year many members of this Society have passed away. Within less than 24 hours on March 2nd, the President of the Illinois State Medical Society, George W. Post, and the oldest member of the Council in years of service, John S. Nagel, were both taken from us. The death of Doctor Nagel came first, after a short illness although he was active only 24 hours before his death. He served as a member of the Council for 25 years, the longest any man has so

served in the history of this society. Doctor Nagel had been one of the most valuable men to serve in this capacity since the Council was first organized some 44 years ago.

Born in Indiana in 1874, he received his early education in the Hoosier State, then his medical education at the College of Physicians and Surgeons which later became the medical department of the University of Illinois. His long career was a most interesting one. In addition to his early interest in his medical society, he was also a teacher of urology for many years, and a prominent staff member of a number of large Chicago Hospitals. Since the beginning of the war he held noon office hours so the many workers in industrial plants could see him without taking time off from their important work.

Perhaps the outstanding activity which will memorialize Doctor Nagel more than any other, was the development of the Committee on Medical Benevolence and its important functions as a result of his repeated urging of the House of Delegates at each annual meeting to create some plan whereby disabled members or widows of former members actually in need, could receive funds.

George Washington Post was born in Wisconsin in 1884 and received his early education there, then in New York State and also in Illinois. He graduated from the University of Illinois Medical School in 1909, and since the completion of his internship, practiced in Chicago until his death. He was elected as President-Elect of this Society two years ago, and was looking forward with much anticipation to the 104th annual meeting, at which time he would have been the presiding officer.

Doctor Post had had several heart attacks during recent months, and had been in the hospital on several occasions. Disliking a life of inactivity, he insisted that he should be doing some work at least, both in connection with his state medical society, and also because so many physicians are with our armed forces. On the evening of March 2nd he passed away suddenly in front of his office, going exactly as he had wished—"with his boots on."

On June 1, 1943, Philip H. Kreuscher, a past president of this Society, died in Chicago after a long illness. A memorial tribute to Dr. Kreuscher was published in the July Illinois Medical Journal. He was a native of Nebraska, received his pre-medical work at North Central College, Naperville, Illinois, and at Creighton University, Omaha, Nebraska. He was graduated from Northwestern University Medical School in 1909, and following his graduation was an intern at Mercy Hospital, then immediately became first assistant to Dr. J. B. Murphy, acting in that capacity until Dr. Murphy's death.

A regular attendant at all meetings of this Society, his was a familiar face each year. He remained active in his society work until he was taken to the hospital where he passed away.

Another past-president of this Society died on March 27th after a prolonged illness. Jacob Carl Krafft, born 1874, graduated from Long Island College

of Medicine in 1899, and had practiced in Chicago since completing his internship. Dr. Krafft, a pediatrician, was a member of many special societies, was Clinical Professor of Pediatrics at Loyola University Medical School, Chicago, until his death.

Dr. Krafft was president of this Society in 1926, and during the year of his presidency, he traveled well over the state, meeting with many local societies, appearing on many of their programs.

John R. Ballinger, for many years the chairman of the Medico-Legal Committee, died only a few months ago. Doctor Ballinger was a regular attendant at the annual meetings and was always interested in the work of his committee, rendering all possible aid to members who were threatened with mal-practice suits.

Arthur Dean Bevan, long a prominent figure as a teacher and in the practice of surgery, died in June, 1943. A past-president of the American Medical Association, and one of the physicians in a great measure responsible for the reorganization of the Illinois State Medical Society in 1902. He was a regular attendant at the annual meetings for many years. It was largely through his recommendation that it became the policy to alternate in the selection of president-elect, between the Chicago Medical Society and the downstate area.

John J. McShane, for many years Chief of the Department of Communicable Diseases, Illinois Department of Public Health, died on December 14, 1943. Dr. McShane aided materially in building up the Section on Public Health and Hygiene in the Illinois State Medical Society. He was a regular attendant at the meetings of this Section, and frequently appeared as a member of this House of Delegates.

Sanford R. Gifford, one of the country's outstanding ophthalmologists, died early in March 1944. Dr. Gifford was secretary for the Section on Eye, Ear, Nose and Throat this year, and had been working on the program for his Section for the annual meeting when he became ill with pneumonia, and died on the fourth day.

Among the many other prominent members of this Society who died during the past twelve months, was George Thomas Palmer, Springfield, long considered one of the outstanding specialists in tuberculosis and founder of the Palmer Sanatorium. Dr. Palmer appeared before many county medical societies to talk on his favorite subject of tuberculosis.

Albert B. McQuillan, East St. Louis, died on November 12, 1943, after a prolonged illness. Dr. McQuillan was one of the members of this Society who aided in the formation of the Crippled Children's Clinics in many sections of the state under the supervision of the county medical societies.

Time and space do not permit mentioning many others who have been active in the affairs of this Society, but it is an unusually long list, indeed. These men have carried the banner of organized medicine throughout the years, and have participated in the many deliberations of this Society. Although they have been taken from us, their memories will be an inspiration

to those of us who remain to carry on, to give better service and to appreciate more seriously the responsibilities which are ours.

### MEMBERSHIP DATA

Membership reported as in good standing

April 30, 1943 .....	8,731
Added during the year:	
New members .....	311
Reinstatements .....	48
	<hr/>
	359
	<hr/>
	9,090

Dropped during the year:

Deaths reported .....	156
Removal or resignation .....	59
Non-payment of dues .....	88
By expulsion .....	
	<hr/>

303

Membership April 30, 1944 .....8,787

Net gain for the fiscal year ..... 56

### FINANCIAL REPORT OF THE SECRETARY

#### RECEIPTS FROM COUNTY SOCIETIES

Adams .....	\$ 344.00	Lawrence .....	64.00
Alexander .....	104.00	Lee .....	200.00
Bond .....	40.00	Livingston .....	290.00
Boone .....	32.00	Logan .....	128.00
Bureau .....	226.00	McDonough .....	184.00
Carroll .....	112.00	McHenry .....	172.00
Cass .....	120.00	McLean .....	432.00
Champaign .....	144.00	Macon .....	332.00
Chicago Medical Society .....	28,882.00	Macoupin .....	174.00
Christian .....	152.00	Madison .....	552.00
Clark .....		Marion .....	200.00
Clay .....	72.00	Mason .....	32.00
Clinton .....	88.00	Massac .....	96.00
Coles-Cumberland .....	288.00	Menard .....	56.00
Crawford .....	160.00	Mercer .....	88.00
DeKalb .....	152.00	Monroe .....	50.00
DeWitt .....	158.00	Montgomery .....	194.00
Douglas .....		Morgan .....	248.00
DuPage .....	536.00	Moultrie .....	42.00
Edgar .....		Ogle .....	200.00
Edwards .....	32.00	Peoria .....	974.00
Effingham .....	100.00	Perry .....	96.00
Fayette .....	72.00	Piatt .....	72.00
Ford .....		Pike .....	88.00
Franklin .....	120.00	Pope .....	16.00
Fulton .....	192.00	Pulaski .....	40.00
Gallatin .....	64.00	Randolph .....	224.00
Greene .....	96.00	Richland .....	8.00
Hancock .....	112.00	Rock Island .....	568.00
Hardin .....	32.00	St. Clair .....	1,168.00
Henderson .....	8.00	Saline .....	352.00
Henry .....	202.00	Sangamon .....	764.00
Iroquois .....	276.00	Schuyler .....	24.00
		Shelby .....	152.00
		Stephenson .....	248.00

Jackson .....	168.00	Tazewell .....	82.67
Jasper .....	48.00	Union .....	108.00
Jefferson-Hamilton .....	96.00	Vermilion .....	520.00
Jersey .....	52.00	Wabash .....	128.00
JoDaviess .....	40.00	Warren .....	144.00
Johnson .....	48.00	Washington .....	80.00
Kane .....	1,406.00	Wayne .....	56.00
Kankakee .....	350.78	White .....	104.00
Knox .....	8.00	Whiteside .....	380.00
Lake .....	616.00	Will-Grundy .....	728.00
LaSalle .....	584.00	Williamson .....	200.00
		Winnebago .....	576.00
		Woodford .....	96.00

Total .....\$48,063.45

### RECEIPTS AND PAYMENTS

May 1, 1943 to April 30, 1944

#### RECEIPTS

Component Societies .....	\$48,063.45
Subscriptions—Journal .....	214.40
Advertising—Journal .....	31,381.04
Exhibits—State Meeting .....	6,887.50
Interest—Bonds, etc. ....	2,334.03
Medical History .....	5.00
Bonds Called and Premium ....	5,100.00
Miscellaneous and Refunds ....	120.15
	<hr/>
Total Receipts .....	\$ 94,105.57
Cash Balance May 1, 1943 .....	71,714.57
	<hr/>
Total .....	\$165,820.14

#### PAYMENTS

Secretary's Office .....	\$15,146.96
Council Expense .....	5,935.29
Educational and Scientific Service Committee .....	9,566.27
A. M. A. Meeting Expenses ...	476.20
State Meeting Expense .....	6,711.03
Maternal Welfare Committee Expense .....	604.04
Post Graduate Committee Expense .....	698.75
Honorariums .....	500.00
Legal and General Counsel Expense .....	524.50
Legislative Committee Expense .	14,034.39
Procurement and Assignment Committee Expense .....	1,098.51
Public Assistance Committee Expense .....	749.37
Journal Expense .....	27,339.87
Unemployment Insurance—Deposit .....	80.29
50 Year Club Expense .....	121.43
Benevolence Fund .....	3,000.00
Various Committees and Miscellaneous Expense .....	473.85
	<hr/>
Total Payments .....	\$ 87,060.75

Cash Balance April 30, 1944 ...	78,759.39
Total .....	\$165,820.14

Respectfully submitted,  
HAROLD M. CAMP, M.D.,  
Secretary.

FRED N. SETTERDAHL  
PUBLIC ACCOUNTANT  
224 Robinson Building  
ROCK ISLAND, ILLINOIS

May 1, 1944

TO THE MEMBERS OF THE HOUSE OF DELEGATES:  
ILLINOIS STATE MEDICAL SOCIETY.  
CERTIFICATE OF AUDIT

I have audited the following accounts of your Society for the fiscal year ended April 30, 1944:

Secretary's Office—Dr. H. M. Camp.  
Journal Office—Mr. L. E. Malley.  
Educational and Scientific Service Committee—  
Miss Jean McArthur, Secretary.  
Benevolence Fund—Dr. H. M. Camp.

#### SECRETARY'S ACCOUNTS:

*Receipts:* Dues received from the Component Societies have been verified with duplicate receipts, the master ledger cards of each Component Society and compared with the Secretary's Report as published.

I have verified the Journal Receipts with reports from the Manager, etc. Other receipts consist of Exhibit rentals, Journal subscriptions, interest, etc.

*Payments:* Payments are made by check and are supported by approved vouchers, orders, invoices, etc.

All funds are deposited in the name of the Society and Bonds amounting to \$75,000.00 have been verified. During the year bonds amounting to \$5,000.00 were called. These have been included in the receipts.

The accounts of the various departments have been well kept and in my opinion represent the true transactions for the year. The Council will be furnished with a detailed audit report.

Respectfully,  
FRED N. SETTERDAHL,  
Licensed Public Accountant.

#### REPORT OF THE CHAIRMAN OF THE COUNCIL

To The Members of The House of Delegates:

The Council of the Illinois State Medical Society has met regularly since the last meeting of the House of Delegates at Chicago in May, 1943, no less than five regular and one special meetings having been held. These meetings have been preceded by meetings of the Executive Committee at which time business to come regularly before the Council has been considered, recommendations made, and the business of the Council expedited thereby.

The work of the Executive Committee does much to expedite the work of the Council which seems steadily to increase in volume. No attempt has ever been made to coerce the Council as is evident by the

free and liberal discussion of many subjects by the members of the Council. The attendance at the Council meetings has been remarkably good throughout the year, a few members missing only a few meetings and the remainder being a 100% attendance.

A considerable amount of time and thought was devoted to the matter of this annual meeting, as the Council was charged by the House of Delegates with this responsibility and it was finally decided to hold this meeting. The meeting to be along lines similar to that of last year with greater emphasis being placed upon the joint sessions. How well the Program Committee and the Chairman of the General Arrangements Committee have succeeded is for you gentlemen to decide.

The resolution referred to the Council by the House of Delegates in 1943, for the Woman's Auxiliary, providing for the payment of per capita to them by the Society for the members whose husbands are in the Armed Forces was carefully considered and the decision reached that no action would be taken to comply with this request.

The Council, in its advisory capacity to the State Procurement and Assignment Service approved the suggestion that the membership of the Cook County Committee be enlarged. Some difficulty was encountered apparently in the Cook County office due principally to an inability to obtain help competent to keep and make proper records of physicians. Organized medicine being allowed and required to determine the availability of its own members as well as being required to provide them for service has been vitally concerned in this project and has been anxious and determined that every assistance be offered to Procurement and Assignment Service so that its functions may be expedited. Those members of the Council who are members of the State Committee have attended several meetings throughout the year having to do with this work. It has been necessary for the State Society to provide some clerical help at the Cook County office during the past year in order that this work could go on more rapidly and efficiently. At present the records are in excellent shape and additional clerical help from the State Society is no longer required. While the members of organized medicine have made and are making as great a sacrifice as the members of any profession, the providing of intelligent clerical help at the expense of the Medical Society, has resulted in the satisfactory solution of a problem which if unsolved might have had some distasteful or embarrassing results. Additional information regarding Procurement and Assignment Service will be reported by the State Committee of that service, Dr. Harold M. Camp.

Attention is called to the House of Delegates of the death of Doctors Ballinger, Collins and Geiger of the Medico-Legal Committee. A third member, Dr. Hawthorne, is in the Armed Forces. The Council had made no appointments of men to serve with Drs. Hawkinson and Williamson. Doctors Ballinger, Collins and Geiger served long and faithfully on this Committee and undoubtedly have provided much help,

moral support and advice on many occasions. The death of these gentlemen constitutes a real loss to this Society.

The Journal Committee has met regularly with the Editor, Editorial Board and the Business Manager and the various problems having to do with the publication of the Journal discussed. The Journal of the American Medical Association saw fit during the year to publish an editorial attacking the Illinois Medical Journal on the basis of accepting advertisements for products that were not approved by the Council on Pharmacy and Chemistry of the American Medical Association. In the opinions of the Editor, the Journal and Editorial Committees, this editorial was unjust and in a considerable measure untrue and this fact was ably so stated in a reply made by the Editor of the Illinois Medical Journal in its November issue. When a prospective advertiser requests a contract for space in the Journal, the Cooperative Medical Advertising Bureau of the American Medical Association is consulted and information regarding the advertiser and the particular product is requested. If in the opinion of the Bureau, the proposed advertisement should receive consideration, it is then referred to the members of the Journal Committee for approval or disapproval. Some of these advertisements display products that are not Council approved while many advertisements are declined inasmuch as it has never been the policy of the Journal Committee to consider the publication of the Journal as primarily a revenue producing project. The Editor and Business Manager work entirely upon a straight salary basis and no commissions or fees are paid that could possibly influence the acceptance of any advertisement. Careful business management, improvement in the makeup and attractiveness of the publication, the attempt to include professional papers of real merit and the publication of material pertaining to the war effort have combined to improve the Illinois Medical Journal as well as to provide a substantial profit for the Society. This has been done in spite of increased costs in publication and in full conformity with the Government request to conserve paper. With all due respect to the Council on Pharmacy and Chemistry of the American Medical Association, the Council has thought it wise to remain the judge of the acceptability of proposed advertising in the Illinois Medical Journal.

The Committee on Medical Care of Public Assistance Recipients under the able leadership of Dr. Chas. H. Phifer has again devoted much time and thought in the interest of the recipients and the physicians. They have met frequently with local and state officials and have demonstrated that diplomacy, wisdom, patience and effort will often obtain results. A change was made whereby the responsibility for these public wards was transferred from the Department of Public Welfare to the Illinois Public Aid Commission. Physicians are now being paid for final illness care and a satisfactory arrangement worked out for the examination of the blind, due to the efforts of this fine Committee.

The death of Dr. John S. Nagel should not and

will not cause the activities of his beloved project, Benevolence work, to slacken. His committee since its inception in 1940 has done much good for needy physicians and their wives in Illinois and this activity of the Illinois State Medical Society will forever stand as a monument to his memory. The Council feels that the election of his successor should result in the choice of a man of tact and good judgment who is capable of carrying on this work so nobly done by the late Dr. Nagel.

The Council authorized post-graduate meetings, not to exceed four, for the past year and the post-graduate setup in this State has been developed into an efficient organization under Dr. Robert Berghoff. These meetings, four in number, have proven to be very popular and have been quite well attended. This is an important activity which is both essential and desirable and is of little expense to the State Society.

The Legislative Committee has had much work to do during the past year and the Council is of the firm opinion that the executive secretary has been most valuable to the Society in this respect. No legislation adverse to the profession was passed at the session of the Legislature during the year, although many bills were introduced which in the opinion of the Committee were questionable from the medical point of view. It became necessary to amend the Medical Practice Act in this State in order to conform to the War Department's Accelerated Program for medical students. The only change that was made provided that the pre-medical classes of 1942, 1943 and 1944 would be able to take the examination for a license to practice in this State after the completion of 36 months of study. Other than this change, the Act was not disturbed. Under the AAA program of the War Department, some of the situations that have arisen have to do with the curtailing of the internships to a period of 9 months and with some hospitals having the number of Internes and Residents reduced. Considerable progress is being made in smoothing out this latter difficulty.

The Committee has submitted a small brochure titled "What Does The Wagner-Murray-Dingell Bill Mean to You," which has been printed and generously distributed. This is intended as informative and educational matter as was the reprint of the Indianapolis Star editorial which also was generously mailed and handed out. The Council at a meeting last fall authorized the drawing of a resolution which in effect voiced the opposition of the Illinois State Medical Society to the Wagner-Murray-Dingell Bills and caused this resolution to be sent to all the County Medical Societies in the State as well as to the various congressmen from Illinois. The Secretary of the Legislative Committee has appeared before many and various organizations to discuss the Wagner-Murray-Dingell Bills and is to be commended for his energy and ability. On more than one occasion, proponents of the Bills have failed to keep their appointments to debate the subject.

Dr. Roland Cross of the Department of Public Health has been most helpful and cooperative and a relationship of mutual trust and confidence exists between Dr. Cross and the State Society. He has been in regular attendance at the meetings of the Council during the past year. Dr. Hugo Hullerman as Chief of the Division of Maternal and Child Welfare has also been in regular attendance since his appointment by Dr. Cross.

Dr. Cross serves on the Governor's Committee having to do with the rehabilitation of discharged veterans with non-service connected disabilities. Much work has been done by this Committee which included members of the Council and plans have already been worked out for the care of these people. No Federal funds are available for this work as yet, but the load is to be carried by the State. The men are to be given free choice of physicians and the fees decided upon were those obtained in a schedule from the Veterans' Bureau and are considered liberal.

Much work has been done by the Committee headed by Dr. James Hutton with the utmost cooperation of Dr. Hullerman in ironing out some of the objections to the setup regarding the care of wives and children of certain men in service. It was pointed out that it was the duty of the Illinois State Medical Society to protect these wives and children and to have them obtain the care as private patients as was intended by Congress. With this in view it was possible after some controversy and several meetings to prevent these people from being placed in the class of indigents and causing them to accept the facilities of out-patient departments and dispensaries. An arrangement was made whereby the patient has the free choice of physician. The Clinic which considers an applicant determines her eligibility on the basis of the clinic standard budget, only after an effort has been made to refer her to a private physician. Where a patient prefers a particular hospital and members of the Medical Staff, including the Courtesy Staff, decline to accept the patient as a private patient, the case may be accepted as a clinic case with no medical fee involved. Assurance is to be given all clinic patients that all regulations governing the conduct of the obstetrical department shall prevail. After many contacts with the Children's Bureau in Washington, Dr. Hullerman states that the maximum fee of \$50.00 for obstetrical care is now in effect in Illinois, the new plan including the principles stated above having been deemed acceptable.

The large collection of pictures of Illinois physicians collected over many years by Dr. Carl E. Black has been turned over to the Illinois Historical Society to be known as the Carl E. Black-Illinois State Medical Society Collection. This collection is second in size only to that of the office of the Surgeon General of the United States Army and it is hoped that this collection may continue to be enhanced. Dr. Black has spent much time and money in assembling this collection and in making the Historical Society custodian, it is hoped that the collection will be safe and that it will be perpetuated.

The Secretary received a letter early this year from the Chief of the United States Internal Revenue Department, sub-department of the Treasury stating that the application of the Illinois State Medical Society to be declared exempt from Social Security taxes by virtue of being a corporation not for profit, and a scientific and educational organization, has been approved and that the Revenue Collector for this district has been so notified. An application for a refund of these taxes, paid under protest for the past 5 or 6 years, was promptly filed. Taxes paid to the State however are being held up, the State Department of Unemployment Compensation declining to consider the refunding of these taxes until a decision has been made on the American Medical Association case.

Being fully aware of the individual physician's privilege to join any legitimate and honorable organization, the Council has declined to accept any invitations to join with new groups recently organized or in the process of organization, having to do supposedly with the welfare and protection of the Medical Profession. The Secretary was requested to inform all the county secretaries that no plan or particular organization would be approved by the Council because this was considered a proper matter for the House of Delegates.

The dues of the members in service in the Army and Navy have been cancelled this past year and the Council recommends that the policy be continued during this emergency. In situations where men have been discharged from service, whose dues were remitted, no attempt has been made to collect dues for the remainder of the year. The cancellation of dues is a matter for the House of Delegates to consider.

The financial condition of the Illinois State Medical Society continues to be excellent and thus far has not necessitated an appreciable curtailment of the Society's activities. Much time is devoted by the members of the committees with little or no expense to the Society.

The Society has suffered a severe loss in the deaths of Doctors John S. Nagel and George W. Post and it is only fair to state that these men devoted much time to the affairs of the Society. Dr. John Nagel was Chairman of the Finance Committee of the Council for many years and his advice and judgment in matters pertaining to the Finance Committee as well as to other matters affecting the Society were invaluable. Dr. George Post, as President, was ex-officio a member of the Council, whose meetings he attended regularly and he was also a man who devoted much time and effort in carrying out his duties. It is with genuine regret that it becomes necessary to report the passing of these men.

A Section on Pathology was authorized recently and will be in evidence at this meeting. The material presented will be of interest to the general practitioner and should provide necessary and helpful information.

The Chairman of the Council wishes publicly to express his indebtedness to the members of the Council and to the members of the various committees who have always been tolerant, helpful and willing to work. These men have given of their time unselfishly to carry on the work of the Society and certainly on many oc-

casions when it has been difficult to leave their own work. The Council and the various committee members have always been cooperative and ready to give their advice when requested to do so. The efficiency of the Secretary, Dr. Harold M. Camp, continues to remain at a high level and he has, in spite of increased activities due to war work, been most helpful to the Chairman. He is always ready to furnish information from his office which is manned by very efficient personnel and the Chairman is happy to express his gratitude and obligation to Dr. Camp.

Respectfully submitted,  
PERCY E. HOPKINS, M. D.,  
*Chairman of the Council.*

DR. HOPKINS: The Chairman of the Council has a supplementary report to offer. However, both of these matters which will constitute a recommendation from the Council to the House of Delegates have to do with changes in the constitution and by-laws and until such a time as the constitution and by-laws committee has reported, with permission of the House of Delegates the supplementary report will be deferred until that time.

#### REPORT OF COUNCILOR OF THE FIRST DISTRICT

To The Members of The House of Delegates:

I have attended meetings with all county societies except one and that county usually holds but one meeting per year to elect officers and delegates and transacts whatever business may be necessary. As this report is unusually early this year I still hope to meet with this society later.

I feel the morale of the men left to carry on is unusually high and the character and type of programs is quite worth while. There is still considerable discontent in most of the societies concerning the bill authorizing care for soldiers' wives, and several of the societies in my district have passed resolutions condemning the procedure, but leaving the way open for individual cooperation if desired. Many societies feel that the service is another wedge to federal medicine.

With the state willing to pay for the final illness under the Old Age Assistance Act many men are more willing to go along on that problem also.

Most of the societies are as active as in pre-war days and are trying in every way they can to protect the practice of men who are in service. I would say that the First District is going along nicely and prospects are good for continued activities.

Respectfully submitted,  
L. J. HUGHES, M. D.,  
*Councilor First District.*

#### REPORT OF COUNCILOR OF THE SECOND DISTRICT

To The Members of The House of Delegates:

In general the six county medical societies comprising the Second Councilor District have come through the past rather difficult year quite successfully. Attendance at meetings has been as good as could be expected under the circumstances, and excel-

lent programs continue to be provided. However, one cannot help but comment on a striking contrast observed at a meeting very recently attended—on one hand three youthful and apparently able-bodied speakers, and on the other hand an audience of gray, bald and aged country doctors. It is the opinion of your Councilor that some areas of the district are definitely without adequate medical care, and the foregoing comment is made not as criticism but with the suggestion that the greater effort be made to spread the available supply of physicians as evenly as possible. As elsewhere, hospital facilities in the Second District are overtaxed, but there is no very evident solution of the problem.

Generally there is great interest in the proposed extension of the Social Security Act to include medical care, and it is felt that organized medicine should take a more active stand. One county society in particular is very much interested in one of the plans which has been proposed.

Respectfully submitted,  
EDGAR C. COOK, M. D.  
*Councilor Second District.*

#### REPORT OF THE COUNCILORS OF THE THIRD DISTRICT

To The Members of The House of Delegates:

The Councilors of the Third District are proud to report the continued growth of the Chicago Medical Society and its 15 Branch organizations. The business of the Society is transacted by the Council which meets once a month. The Council voted to continue its policy of remitting the dues of members in military service.

A scientific meeting is held once a month by the Chicago Medical Society as well as by each Branch Society from October to May inclusive. Occasionally adjoining Branches hold joint meeting and this year the Central Society succeeded in increasing its attendance by inviting one or more Branches to join it in conducting its regular monthly meeting. The subjects discussed at most of the meetings have been on War Medicine and Tropical Medicine and in many instances the speakers have been members of the armed forces.

On January 1, 1944, membership of the Chicago Medical Society was 5,295 which included two Associate members, 41 non-residents and 85 internes—an increase of 219 members over the preceding year. To date, 1,502 of our members have gone into active military service and of this number nine men have died while on duty. During the past year 67 members of this Society have died.

In March of this year we lost two of our most active members—Dr. Post and Dr. Nagel. Dr. George W. Post, President of the Illinois State Medical Society and past president of the Chicago Medical Society suffered an attack of heart block in November, 1943. When he was able to leave the hospital he convalesced in California, then returned to Chicago where he resumed his medical practice and immediately plunged into the work of the Medical Society. His devotion to duty gave him little leisure and on March 2 he died suddenly of coronary occlusion. Illinois

State Medical Society and the Chicago Medical Society have lost a faithful servant and a loyal friend.

Dr. John S. Nagel was a past president of the Chicago Medical Society and at the time of his death was serving his twenty-sixth year as Councilor of the Third District. As Dean of the State Council his wise counsel will be sorely missed. On March 2 he died of coronary thrombosis.

At its regular meeting in December, 1943, the Council of the Chicago Medical Society decided to conduct an Annual Clinical Conference which this year was held March 14 to 17 inclusive. The program committee endeavored to arrange a program which would be of interest to all groups in the practice of medicine. That this was accomplished is indicated by the following attendance data:

Physicians .....	1213
Physicians in service .....	124
Internes and residents .....	192
<hr/>	
Total .....	1529
Nurses, technicians, students, and guests .	348
Scientific exhibitors .....	53
Technical exhibitors .....	221
<hr/>	
Total registration .....	2151

The enthusiasm shown will no doubt result in its being repeated annually which was the original intent.

During the latter part of 1943 as a result of the requirements of armed forces and the rulings of the Procurement and Assignment Committee, chiefly the 9-9-9, many of the smaller hospitals were without internes and residents and only occasionally had the services of externes. To overcome this difficulty staff members took turns in performing the duties of internes. The situation was acute and the staff men cheerfully took over.

On January, 1944, however, these hospitals were again able to secure limited numbers of internes and residents thus enabling such institutions to function as usual. If the interne shortage should occur again we are certain hospitals will once more receive the same co-operation of its staff members.

The armed forces have taken many essential men from Cook County hospitals, for example, a pathologist or roentgenologist, thus creating a real hardship inasmuch as all hospitals are operating on a capacity basis. This critical situation has been met, however, by the excellent co-operation of such specialists who are allocating their time to two or more hospitals. On the whole members of the Chicago Medical Society are filling the gaps left by their members in military service, thus maintaining high standards of medical care expected throughout this community.

For the efficiency in the Chicago Medical Society office much credit is due our patient assistant secretary, Mrs. Esther Fraser, a veritable "port in a storm."

Respectfully submitted,  
PERCY E. HOPKINS, M. D.,  
E. W. MUELLER, M. D.,  
*Councilors Third District.*

## REPORT OF COUNCILOR OF THE FOURTH DISTRICT

To The Members of The House of Delegates:

Representing the Fourth District of the State in the Council for the first year, it is the desire of this Councilor to express his appreciation of the courtesy and the fellowship accorded him, a new member, by the other members of the Council and by its chairman.

The counties included in the Fourth District have been quite active during the past year, either in their county organizations, or through other organizations within their geographical borders with one exception. One of these counties, Henderson, has but three (3) physicians practicing within its limits and of necessity, its organization as such has had limitations. Stark county has had no active organization and for the most part, the physicians of this county have affiliated themselves with the Henry County Society.

The individual members included in this Fourth District have been very active in their individual practices because of the shortage of physicians. They have been active also in scientific assemblies, as great a percentage attending such meetings as in pre-war times. These individual members, as well as their local organizations, in the Fourth District, also, have been active in the consideration of the economics of their profession. They have accomplished much in bringing to the public's consideration the evils of such legislation as the Wagner-Murray-Dingell Bill.

Many of our members have appeared as speakers on the programs of various medical organizations including not only county societies, but state, inter-state, district, and regional conferences. A few of our members have been acting on nation-wide committees set up for information and for constructive suggestions by the Federal Government.

The Fourth Councilor District has this year been fortunate in the establishment of Mayo Hospital (a federal military hospital with seventeen hundred beds) in Galesburg. This institution has brought to us a great incentive for more scientific work. Equipped and manned as it is with facilities for every and all diagnostic aid and treatment of disease, it affords a great opportunity to those of this district who may avail themselves of attendance at its clinicopathological conferences, (which are "open"). The cities of Peoria and Rock Island have already, for some years past, conducted such meetings and with excellent results.

This Councilor's district has, among the organizations that are active in its midst, several clubs serving the physicians most effectively and most satisfactorily, such as: The Academy of Medicine in Galesburg; the Physicians' Club in Kewanee, which has existed for many years; The Physicians' Club in Peoria; The Physicians' Club in Rock Island; The Monmouth Physicians' Club in Monmouth, the latter of which we are informed is the oldest organization of its sort in the State of Illinois. These clubs have served well this year not only in their continuance of furthering scientific study but also as forums for discussions of and dissemination of information of economic problems in our profession at the present time.

During the past year, it has been the pleasure and honor of this Councilor to award, on behalf of the State Society, one of its emblems for completion of 50 years of active practice to one of the Knox County members. It has also been his privilege to enable the committee on Medical Benevolence to secure aid for one of our members who is aged and incapacitated. There are three recipients of aid on this district's roster.

It is this Councilor's belief that the membership of his district is for the most part content with the set-up for care of the old aged dependents, etc., but that they are not satisfied. It is his belief also that the individual physician as never before in this generation, is aware of the necessity of his managing his own profession instead of just letting it "run itself." And because of this, the members of the Fourth District are interested in the reports which they receive from our various State Medical Society Agencies and especially those concerning legislation sent out by our legislative committee and in the same category, it is the Councilor's thought (formed after interviews with members of the various sections which he represents) that they, the members, will appreciate information from our Nation's Capital by their own agencies in much the same manner as they now enjoy from their own State Capital.

The Fourth District has 617 physicians licensed to practice within its limits as of March 16; of this number, 160 are now serving in the military service.

Of this 617 men, only 518 are members of their county societies and of this number 131 are in military service. This leaves 457 medical men in the Fourth Councilor District to take care of a population of 528,860.

Respectfully submitted,  
CHARLES P. BLAIR, M.D.,  
*Councilor Fourth District.*

#### REPORT OF COUNCILOR OF THE FIFTH DISTRICT

To The Members of The House of Delegates:

Conditions affecting the medical profession in the various counties of the Fifth District are just as critical as they were a year ago. Physicians are still joining the armed forces and the older men who remain have done a excellent job in carrying the extra load which has been placed upon them. Although special meetings have been curtailed, regular meetings have been held and the attendance has been good considering the reduction in numbers of physicians who are in active practice. No serious problems have arisen within the District during the year.

In November a Post-Graduate Conference was held in Bloomington with a good attendance. Because of the interest shown by the profession it would seem desirable that some of these conferences be held during the coming year.

A number of deaths have occurred during the year. Sangamon County lost six members by death, viz.: Drs. George Palmer, John J. McShane, N. A. Balding, W. A. Young, E. S. Spindel, Gerald Hunt. Dr. Charles

H. Hamil of Menard County died recently. Also Dr. W. B. Perry of Logan County. McLean County lost Drs. C. W. Ritter and E. L. Brown. Dr. Brown who was in his eightieth year was the oldest member of the McLean County Society and was in active practice within a month of his death.

Respectfully submitted,  
RALPH P. PEAIRS, M.D.,  
*Councilor Fifth District.*

#### REPORT OF COUNCILOR OF THE SIXTH DISTRICT

To The Members of The House of Delegates:

Increased professional duties due to the war have made inroads on the time available for visits to county societies.

In spite of the above, as Councilor of the Sixth District, I can report that everything is peaceful, quiet and harmonious. Naturally, our members are working too hard, but there is a cheerfulness about which lends additional evidence that all physicians are glad to contribute toward ending the war as soon as possible.

I have been particularly interested in stimulating the men in this district to contact their representatives in Washington in opposition to the Wagner-Murray-Dingell Bill. I have reason to feel that our efforts have been of some avail. The feeling in my district is that while the Wagner Bill is probably dead for this session, that the profession has merely been given time to provide something constructive to offset proposed types of legislation to furnish medical care to certain classes of our population. This is a real challenge and should be met by the profession.

I am convinced that the public does not realize the implications contained in the proposed Wagner Legislation. Recently an open meeting of a local society was held in my district and was well attended by representatives from all walks of life. The meeting was addressed by the Executive Secretary of the Legislative Committee of the Illinois State Medical Society, Mr. John W. Neal. The address was a fair and impartial presentation of this subject. Because of the public reaction to this meeting, I am sure meetings of this type should be encouraged, and even arranged, by the State Society.

In addition to my duties as Councilor of the Sixth District, I have attended many meetings representing the State Society on the Advisory Board to the Department of Public Health and as a member of the Sub-Committee of the I. P. A. C. to administer the Blind Pension program.

Recently, in one county of my district, as chairman of a committee to secure increased rates paid by the supervisors for medical care, I was able to secure an increase of 33-1/3%, making the rate at county level above that of the I. P. A. C. state level rates. Properly approached, and particularly well armed by legal assistance, boards of supervisors are quite amenable to reasonable requests.

Respectfully submitted,  
WALTER STEVENSON, M. D.,  
*Councilor of the Sixth District.*

REPORT OF COUNCILOR OF THE  
SEVENTH DISTRICT

To The Members of The House of Delegates :

A survey of the Seventh Councilor District shows a growing shortage of physicians, especially in large communities, where there are large areas without a resident physician. These localities are being supplied by medical personnel from adjoining communities, often miles distant. Many of the older men who had practically retired from the practice of medicine, have again resumed active practice, and are doing a fine job. All hospitals are packed to the doors, all have long waiting lists of patients seeking admission. The nursing staffs are inadequate, there are no internes or residents. All this and many other personal sacrifices have been made in order to make adequate medical care available to every family in the district. My personal compliments to these heroic men and women. They have never failed to measure up when the home front demanded the full measure of devotion to organized medicine. The above picture I am sure, is representative of every county in every district of the State Medical Society, and represents a united action, well coordinated on the local home front. There is general unrest, however, in the medical profession throughout the state and country, at what is generally considered a failure on the part of the A. M. A. Council on Medical Service and Public Relations to act in the best interests of the profession, by establishing a bureau in Washington, representing officially, organized medicine as a two way shuttle, giving authoritative information to members of Congress on all bills and keeping the profession informed up to the minute, on what is happening. Had such a bureau been established in Washington, the trend of the national Government to meddle in the vital field of medical service, could have been discouraged, or even prevented. It is quite evident that the component Societies of the Seventh Councilor District do not want a political machine as proposed by the Wagner-Murray-Dingell bill, as it does not provide for a sound development of a national health policy. Most of the societies have registered their protest to their congressmen, and have had encouraging replies. Many of the members of the District have expressed a keen interest in the organizations already established and unless the Council of the A. M. A. assumes this responsibility in the very near future, their endorsement of these organizations by membership in the same will be given. The County Societies have kept up their interest in scientific medicine throughout the year. The smaller Societies have joined with the larger Societies in carrying on their scientific programs.

The Councilor feels deeply the loss of the ranking Senior Councilor of the State Society, Dr. John S. Nagel and the President of the Society, Dr. George W. Post, and joins with the entire profession in expressions of deepest sympathy.

Respectfully submitted,

I. H. NEECE, M.D.,

*Councilor of the Seventh District.*

REPORT OF COUNCILOR OF THE  
EIGHTH DISTRICT

To The Members of The House of Delegates :

In my report last year I reported that most doctors under the age of 45 were in the armed service and that the doctors remaining at home were very busy. At this time very few doctors in the lower age group are in civilian practice and a few deaths have further depleted the number left for civilian practice; however, there is little complaint about insufficient medical attention. The co-operation of all groups has been fine and the public has been very considerate. Hospitals have been filled to capacity and on account of shortage of nurses have had great difficulty in giving the patients the usual care.

The component medical societies of the Eighth District have maintained their active organizations and have continued their usual scientific programs with regular meetings. Some of the counties in the district do not hold regular meetings on account of the small number of doctors in their county but many of their members take advantage of the scientific programs in adjoining counties.

There has been considerable comment and criticism of the Federal plan for the care of wives of service men in maternity cases. Some doctors refuse to accept these cases but other doctors are going along with the program hoping that it will be discontinued when the war is terminated. It is felt that this program is the one big step in the socialization of medicine.

The program or plan for caring for the non-pauper group as outlined by the Illinois Public Aid Commission is apparently meeting approval with the doctors in this District. The plan of carrying out this work through the local governmental units is the logical way in a democratic form of government. Every county medical society should organize to give full co-operation with their local and State Public Aid Commission.

There has been considerable activity throughout the Eighth District in opposition to the proposed legislation for the socialization of medicine. Many lay groups are actively against such legislation and most of the service clubs are sponsoring programs in opposition to such legislation. I have not learned of any group or club having speakers who favor such legislation. There is a general feeling that there is a demand for some changes and that organized medicine should offer some plan to meet this demand. Group Hospitalization Plan or the Blue Cross Plan is being operated in some localities with much approval and it has been suggested that some similar plan might be instigated that would care for medical expenses, but it should not be under federal control.

Great interest was shown in the Post-Graduate Conference held in Danville, April 27, 1944. We had a very interesting and worth-while meeting.

I appreciate very much the efforts of the officers of the component medical societies of the Eighth District in maintaining active organizations. A strong,

active medical organization in each county is very essential at this time to meet the changes that no doubt will be proposed during the next few years.

Respectfully submitted,

C. E. WILKINSON, M. D.,  
*Councilor of the Eighth District.*

#### REPORT OF COUNCILOR OF THE NINTH DISTRICT

To The Members of The House of Delegates:

The Ninth Councilor District is composed of 14 counties in the southeastern part of the state. Some of these counties have a goodly number of physicians, and some have but few. There are 12 organized societies in the Ninth District; one small county has no organization and one small county, Hamilton, is combined with Jefferson in an organization. The Jefferson-Hamilton County Society, the Wayne County Society, Franklin, Williamson and Saline County Societies have regular monthly meetings, and splendid scientific programs. Three counties, Johnson, Pope and Massac have a tri-county organization and have monthly meetings. Some of the small counties, Edwards, Wabash, White and Gallatin, have meetings occasionally. However, many of the physicians in these counties attend the scientific programs held in other parts of the district.

Practically all of the physicians living in southern Illinois under 45 years of age, who are physically fit, are now in the army, navy, or air corps and our medical meetings have not been so numerous or so well attended due to the fact that the older men are busy caring for the medical needs of the various communities. Notwithstanding the absence of so many young physicians, the older men are rendering good medical service and the morbidity and mortality compares very favorably with that of previous years.

The Southern Illinois Medical Association met at Anna during the past year and many physicians from the Ninth District attended—some driving more than a hundred miles.

The organized medical profession in the Ninth District has kept in close contact with the members of legislature and our congressmen, and has used every effort to acquaint them with the views of organized medicine, concerning vicious medical legislation which has been introduced in our state legislature and congress. Director of Registration and Education, Honorable Frank G. Thompson, comes from my home city in the Ninth District, and we are happy to report that he has been very cooperative in helping us to correct some of our embarrassing medical problems.

Respectfully submitted,

ANDY HALL, M.D.,  
*Councilor Ninth District.*

#### REPORT OF COUNCILOR OF THE TENTH DISTRICT

To The Members of The House of Delegates:

In order to ascertain the status of the County Medical Societies of the Tenth District, I forwarded a questionnaire to each secretary as follows:

1. Number of meetings held and percentage of attendance.
2. Membership:
  - (a) Number of members;
  - (b) New members;
  - (c) Deceased members;
  - (d) Emeritus members;
  - (e) Number of members in military service.
3. Are any members eligible for the Fifty Year Club?
4. Have you any aged or infirm doctors or doctors' widows or orphans in your county eligible for medical benevolence?
5. What special activity was brought up in your county this year?
6. What recommendation does your County Society expect to make to your delegate for the State meeting?

The following information has been received to date:

Society	Members.....	Members in Service .....	New Members	No. Meetings per Year.....	Emeritus.....	Av. Attendance	Deceased.....
Alexander County.....	15	3	2	12	0	75%	0
Jackson County.....	18	14	1	6	1	66%	3
Perry County.....	15	7	0	0	1	0	0
Randolph County.....	19	4	2	4	1	50%	0
Washington County....	12	2	0	12	0	100%	0
Union County.....	16	2	1	14	0	75%	0
St. Clair County.....	122	31	1	12	5	53%	3
Monroe County.....	5	2	0	1	0	100%	0
Pulaski County.....	5	0	0	2	0		0

It is very encouraging to know that our County Medical Societies have been carrying on as actively as they have with the decreased membership and increased work of the doctors.

In answer to questions 5 and 6 included in the questionnaire, there are still quite a few complaints regarding the Old Age Assistance and the manner in which it is handled.

In this connection, I should like to refer any members who might be interested in this subject to their Illinois Medical Journal, December 1943 issue, page 355, under the heading "Illinois Public Aid Commission, Official Bulletin No. 50", by Raymond M. Hilliard, Public Aid Director, in which he gives the legal status and the way of procedure in a very simple form.

I wish to pay my respects and tribute to the managing officers and their medical staffs of the Anna State Hospital, the State Prison and Hospital at Menard and the Alton State Hospital for being hosts

to their County Medical Societies and surrounding counties with a very excellent scientific program and clinic during the past year.

Due to the fact that difficulties have arisen through appointments made by administrative and public health authorities to positions in some of the counties, I suggest a closer co-operation between these authorities and the County Medical Society before any appointments are made.

The Doctors of the Tenth District are very pleased with the recommendation made by doctors of other districts to the effect that the establishment of an office in Washington for the purpose of keeping our senators and representatives properly informed on better health legislation is of particular interest to their Society and receiving much consideration.

I have had considerable correspondence with doctors in the service and they all urge us at home to do all in our power to block legislation on the Wagner-Murray-Dingell bill. My suggestion to block a bill is to vote against all legislators and others who support it and use your influence in your entire community to do likewise.

Respectfully submitted,  
G. C. OTRICH, M.D.,  
*Councilor, Tenth District.*

#### REPORT OF COUNCILOR OF THE ELEVENTH DISTRICT

To The Members of The House of Delegates:

Maintenance of regular meetings of component County Societies has been increasingly difficult during the past year. From one third to one half of the physicians in this district are now in military service and this includes about ninety per cent of the men under thirty-eight years of age who are eligible for commission in the armed services. Naturally, this has greatly increased the work of the men remaining at home and since they are in the higher age group, it has been at the physical expense of these men. The Councilor is very much of the opinion that adequate medical care is being rendered in the counties in his district, even though at times the public becomes a little impatient with somewhat delayed service. Your Councilor has traveled as little as possible during the past year but has attended several meetings of component county societies. He has attended all the meetings of the Council of the Illinois State Medical Society and has been reasonably active in committee work. There has been no particular problem or problems arising in this district during the past year. All of the component societies are functioning quite normally as well. Ford County has not had regular meetings for several years, due to its limited membership and great distance between towns. DuPage, Kankakee and Iroquois County Societies have monthly meetings and Will-Grundy has weekly meetings. Attendance has been good in all society meetings, considering the few physicians remaining in practice.

The furnishing of adequate medical care to the public by those doctors remaining at home seems to your Councilor to be the greatest problem of the med-

ical profession. The cooperation of the public is necessary for this to be continued and your Councilor is of the opinion that publicity through speakers and the press to the public will have good results. He knows of no place in his district where the public is not getting adequate service and this is worthy of comment at this time.

The care of the recipients of public aid including old age assistance and aid to dependent children, continues to be a source of discussion and difference of opinion. Cooperation between the medical profession and the Department of Public Aid is improving throughout this district but there still remain many questions to be discussed and worked out. The furnishing of free obstetrical and pediatric care to the wives of enlisted men of the army and navy has increased the amount of government controlled service. Frequently, the rendering of obstetrical care has been considered part of the work of the Department of Public Aid. This, of course, is in error, as it is under the Department of Public Health. Any of the problems arising in regard to the rendering care to the wives of soldiers and sailors is in no way related to the problem of old age assistance and aid to dependent children.

The Councilor wishes to express his thanks to the officers, to the various component societies for the support and cooperation during the past year. He expects them to carry on during the coming year.

Respectfully submitted,  
E. S. HAMILTON, M. D.  
*Councilor, Eleventh District.*

#### REPORTS OF COUNCILORS AT LARGE

To The Members of The House of Delegates:

We are all grieved at the sudden death of the President of our society. George W. Post was a conscientious hard working physician who gave splendid service to the physicians of Illinois. We regret his passing and we honor the memory of a splendid doctor.

Dr. John Nagel's death preceded Dr. Post's by a short day and in him we lost the oldest member of the Council, a man who always stood for what he believed to be right and a man who was a friend of every honest doctor in Illinois. We salute the staunch friend who was represented by John S. Nagel.

Your Councilor-at-large has attended all the meetings of the Council held during the past year as well as various county meetings from time to time in Northern Illinois. It would seem to me the general practice of medicine is being carried on in a satisfactory way. On the whole the public is receiving adequate medical services although it may be somewhat delayed. The public, as a rule, has cooperated almost beyond a reasonable extent to save the Doctor's time and energy. At times they neglect to call a physician when they should because they think he is too busy.

Bills for the regimentation of medicine are not popular with the public at this time. Everyone is conscious of bureaucratic rule, federal domination and increased taxation. However, social changes are being carefully considered by various groups of doctors throughout the country. In medical economics there is a feeling that the National Association has been too slow and that other groups have stolen the show at the present time. It is quite possible that the National Association will take over and do a real job.

It has been a pleasure to serve you and I thank the membership for their cooperation and good will.

Respectfully submitted,

EDWARD H. WELD, M.D.,  
*Councilor at large.*

#### To The Members of The House of Delegates :

The war and the social conditions associated with it have helped make the past year an intensive epoch in medicine. In the interim since the House of Delegates of this Society met one year ago, we have seen many physicians who were formerly held as essential to civilian medical care, industry, public health or as teachers in our medical schools enter the Medical Corps of the military forces. This has placed upon the older physicians and those found disqualified for military service the responsibility for administering medical care to the civilian population, industry, public health, as well as teaching in our medical schools. The faithful and efficient manner in which these increased obligations have been discharged by these physicians reflects great credit upon them as citizens and physicians. It is likewise to be noted that regardless of the fact that many had marked physical handicaps, they have given efficient service. Their loyalty and patriotism in protecting health and welfare of the public in these times of distress is most commendable.

There is a possibility that the category of Social Security may be extended to other divisions. The Social Security Board has recently recommended increased changes and benefits to the public assistance program. The Board also believes the old age assistance program should be extended to include all workers. The Board has also recommended in this liberalization of Old Age and Survivors' Insurance an addition against temporary and permanent disability.

There can be no question but what the proponents of the Wagner-Murray-Dingell Bill now pending in Congress sought the present social turmoil as the opportune time to have this legislation enacted into the laws of our country. It is far-reaching in scope and would deprive all of us of the rights and privileges as granted under the Constitution of the United States. It is most unfortunate that it should be introduced at a time when so many of the physicians of this country have voluntarily entered military service to aid our nation and our Allies to win victory in this global war. It is likewise appalling to me to think that legislation of this type should be contemplated in a country in which the citizens have enjoyed the fine type of medical care that people of this nation have experienced,

to say nothing of the great benefits the public has derived from the vast amount of scientific research that has been done by members of the medical profession in regard to the management and control of disease, the progress of which would be curtailed, if not discontinued under such legislation.

As a member of the special committee appointed by your Council to study the Wagner-Murray-Dingell Bill and to make recommendations concerning it, I want to state that this committee has given this bill and its entanglements very careful consideration. Much of this information has been disseminated through your ranks through county medical societies, clubs, Parent-Teachers Associations, hospitals and industrial groups. This bill must be defeated. In my opinion it can and will be if every physician will assume his personal obligation in helping to arouse among our citizens and congressmen the realization of the destructive effect of such legislation.

The Emergency Maternal and Infant Care legislation, better known by many physicians as the Obstetrical Care Program for Soldiers' Wives, is another war time medical care program passed by Congress to take care of obstetrical cases occurring among the wives of service men in the four lowest pay brackets of the Army, Navy, Marine Corps and Coast Guard during this emergency. It is stated that it was planned for the duration of the war and six months thereafter. Its objective was to raise the morale of the enlisted men and their families. It was likewise stated it was not to be administered as if it were charity but as part of the war effort. I greatly appreciate the fact that this program has been a controversial issue with some physicians. I personally do not do obstetrical practice, but as a member of the Council I have had many physicians contact me regarding this project. Many physicians are not familiar with its plan of operation or why it was enacted. Your Council, through its Medical Advisory Committee to the Director of Public Health, has done much to clarify this program and make its plans more workable.

The physicians of this state have been most fortunate in having a Director of Public Health who, with his representatives, has been most cooperative in trying to simplify the proceedings connected therewith. In view of the fact that this program is not to be administered as charity I personally am at a loss to know the reason why there is an attempt on the part of the Government officials to interpret into the act provisions to include these wives in charity clinics.

The Council on Medical Service and Public Relations was created at the request of the House of Delegates of the American Medical Association at its session in 1943. It was the hope of the House of Delegates that this committee would help solve many of the social problems that have developed in medicine during this present era. This committee has been busily engaged in making a study of various problems in medicine including pre-payment plans and questions arising in connection with the socialization of medicine. It is the hope of many physicians that through this committee there will be established an office in Wash-

ington where information concerning medical problems will be available for Congress. It is sincerely hoped that this committee will have something constructive to offer.

The National Conference on Medical Service which met in Chicago in February also reflected the problems of social disturbance of the present era. At that conference there were several plans presented by different medical groups from various sections of the country, each of which thought its solution was a panacea for the present social upheaval. Many of these plans recommended the opening of an office in Washington. In my opinion these facts simply forecast some of the problems that will be presented, about which there will be much discussion at the meeting of the House of Delegates of the American Medical Association.

The transfer of the administering of the programs of Old Age Assistance, Aid to Dependent Children and the Blind, from the Department of Public Welfare of Illinois to that of the Illinois Public Aid Commission was an effort on the part of the administration to place all public assistance programs into one department. This not only simplifies administration but also is economical and constructive. There, however, remain many other discrepancies in the welfare programs of this state. It is my information that there are other activities proposed through further codification of our statutes that will continue to simplify our laws and the administrative problems of these categories. It is my belief that some thought might be given by the Illinois State Medical Society to a simplification of many of our problems pertaining to public health in this State.

It appears to me some thought should be given to the fact that a number of our County institutions are now charging various welfare agencies a per diem fee for their clients who are hospitalized in those institutions when they are ill. This represents another social change and is a wide deviation from the policy under which most of our County institutions were chartered, as they were primarily built for the care of the indigent of the county. In this connection it is to be noted that our statutes do not classify social security clients as paupers, but rather as non-paupers. We should remember that one of the reasons advanced for the enactment of the Social Security Act was to remove people in these categories from Alms Houses and public institutions by providing them with a monthly stipend on which they might exist as private individuals; that this stipend should provide for the ordinary commodities of life. It is likewise to be noted that in all instances the welfare agencies have considered the latter to include food, clothing, shelter and medical care. If people in these categories are referred to a county institution for medical care it deprives them of their monthly grant. This is particularly true with reference to the Old Age Assistance and Aid to Dependent Children and the Blind programs. In general we may say that the right of the

majority of this group of people to participate in these programs was established through their application and they are lawfully entitled to this assistance. Inasmuch as they are classified as non-paupers there should be some other way in which these agencies could provide hospital and medical care than through County institutions. Another point I think is important is the fact that this deprives them of their free choice of physicians.

I think it is important to remember that the majority of Government programs since the days of Federal Rules and Regulations No. 7 have given these patients their free choice of physicians so as to maintain the patient-physician relationship. This radical departure in housing these clients in County institutions for medical and hospital care, since they are non-paupers, is a problem that may well be considered by your House of Delegates.

In the passing of Dr. John S. Nagel and Dr. George W. Post, the Illinois State Medical Society has lost two very valuable members of the medical profession. Each of these physicians was renowned in his specialty in medicine. Each had long and valuable experience in organization work of medical societies, as well as the programs connected therewith. They each had very constructive minds, were careful deliberators, keen of judgment and each always mindful of his obligation, likewise ever ready to make personal sacrifices in behalf of the medical profession. They were fine fellows, enjoyed a wide acquaintance among the medical profession. Their places will be hard to fill.

Respectfully submitted,  
CHARLES H. PHIFER, M. D.,  
*Councilor at Large.*

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To The Members of The House of Delegates:

It is hardly worth while for me to make a report of the past year's service. Of the eighteen years on the Council the last has been the least for service to our State Society. Not making any apologies for you all know how completely our time has been occupied by the different phases of war work. Not being considered available for service in the army, I have done my utmost to fill in that others might go to the front where they are so much needed. While home service is not so much recognized, it is nevertheless needed and but little if any, less exacting and important.

This, my final report of these years of service to the profession, the State Society, and to the public I can only say that while at times the work has been arduous, I have enjoyed it. With great hopes for the future of the Illinois State Society, I leave the council regretting that my service has not been more fruitful. Younger men are taking hold and if I can be of any help, will be at their command anytime anywhere, to sustain and improve the Society's efforts for the benefit of humanity.

Respectfully submitted,  
J. S. TEMPLETON, M. D.

## Reports of Constitutional Committees

### REPORT OF PUBLIC RELATIONS COMMITTEE

To The Members of The House of Delegates:

Another year has rolled along since our last report, and while we have had a number of disputes with the insurance companies, we have been able to have the bills of the members submitted, paid. It has not always been plain sailing, but in the end the companies have seen it our way.

The fee schedules of the counties, and court rulings have helped us very materially.

The principal duties of the committee for some years have been to persuade the companies to see the light as we did. We believe they are now seeing eye to eye with us. We are inclined to think so for the reason that there have been very few calls for help in settling bills during the past year. This is very pleasing to the committee as we had some bitter fights to convince some of the companies that we were entitled to a just wage.

That our members may be informed of the conditions, and what they are required to do, before asking the committee to intercede for them, we are again submitting a few paragraphs that you may know what you are to do and what we have been doing.

The courts have ruled in this state that when physicians render bills for care to injured employes, the bill, if in conformity to the fee schedule of that particular community, is a just bill and must be paid.

When any member of the Illinois State Medical Society has trouble in getting payment in full for services rendered to companies carrying insurance and his fees were in accordance with the fee schedule of the community, our committee will gladly do everything possible in assisting the member to get the settlement to which he is entitled.

An itemized account of the charges made in each case, with a statement from the county medical society Secretary that the bill is just and conforms to the usual rates for that type of service within the county should be sent to the Chairman of this Committee, and we will render all possible assistance.

If the House of Delegates desires additional information regarding any of our activities, we will gladly submit same.

Respectfully submitted,  
W. S. BOUGHER, M. D.,  
*Chairman,*  
FRED H. MULLER, M. D.,  
H. W. WOODRUFF, M. D.  
*Committee on Public Relations.*

### REPORT OF LEGISLATIVE COMMITTEE

To The Members of The House of Delegates:

At the time of the Annual Meeting of the House of Delegates which took place in May, 1943, the attention of this committee was of necessity focused primarily upon the activities of the Illinois General Assembly,

which was then in session. There were then pending numerous bills, many of them perennials, of importance in varying degrees to the medical profession and to the people it serves. While several of these measures were for many weeks a cause of grave concern, the final results of the session were most gratifying to this committee, and were generally regarded as very satisfactory.

In previous years, the profession in Illinois had relatively little occasion to be concerned with legislative affairs except within our own state. In those days, the Legislative Committee was usually extremely active during the first six months of the even numbered years, while the state legislature was in session, and was relatively inactive for the ensuing eighteen months. That era ended abruptly on June 3, 1943, with the introduction into Congress of the "Wagner-Murray-Dingell Bill," with its program for the socialization of American medicine. Needless to say, since that date, this committee has devoted itself almost exclusively to the organization and co-ordination of opposition to this drastic legislation.

Fortunately, physicians are by no means alone in the battle against the bill. Medicine finds a natural ally in every citizen who believes in the preservation of our traditional American liberties, and who sees clearly that initiative, industry and thrift must not go without reward. Those who would oppose the bill must, on the one hand, submit to accusations of being greedy, reactionary, fascist, and interested only in the protection of selfish vested interests; and, on the other hand, they have the burden of overcoming a flood of misinformation about the alleged merits of the bill, and of presenting the real facts to a genuinely interested but somewhat bewildered public. Experience proves beyond the slightest doubt that very few people have any real understanding of the background, provisions or implications of the bill. Misunderstandings as to these considerations are many and varied. Many have the idea that it provides a medical Utopia, and that in return for their contributions, they would be entitled to receive just as much medical, hospital or institutional care as they might desire or request. Others believe it is a voluntary program, in which none need participate against his wishes. Still others have vague notions that somehow socialization will, as if by magic, produce or create medical and hospital facilities in cheap and inexhaustible quantities, where none existed before. Nearly all have, to some degree, the idea that physicians oppose socialization for purely personal and selfish reasons, and that organized medicine has done very little, if anything, to help solve the defects in the system by which our medical care is distributed. This last impression is doubtless due to the fact that organized medicine has devoted itself primarily to studying and experimenting with plans for medical and hospital care, and has given little thought or effort to effectively publicizing the experiments or their results.

If the fundamental concepts of the Wagner Bill are to be long held in check, medicine—and its allies—must undertake an energetic campaign to inform the

public what efforts have been and are being made, to enable the average citizen to better anticipate and provide for the cost of medical care. More than this, medicine must exercise vigorous and realistic leadership in this field, in cooperation with industry, hospitals, insurance companies and other private agencies. That the average citizen demands that he be assured access to competent medical service, is a glowing tribute to the high standards of excellence which medical service in this country has achieved. He recognizes its worth and is willing to pay for it. He realizes, too, that although scientific research and a high degree of specialization have in recent years greatly added to the cost of medical care, that added cost buys something of inestimable value: better health and a greatly increased life expectancy. But better health and an increased life expectancy do not materially improve his present ability to anticipate and provide for the cost of currently needed medical care. He demands that some one help him to help himself now. The plain truth is that unless this is accomplished through the voluntary efforts of private agencies, he will ultimately call upon government to solve his problem for him. Medicine can best serve the people and itself by taking a leading role in solving the social and economic problems which now tempt many Americans to exchange liberty and opportunity for the promised land of security.

In one sense, it is unfortunate that the additional burden of fighting socialized medicine has been cast upon our civilian physicians at a time when over 50,000 of their colleagues are in the armed services. On the other hand, it is probably a wholesome result that the average physician has through necessity taken a far more active interest in the political affairs of his country than he could ever have been induced to take in normal times. The medical men in service realize and appreciate the efforts which their civilian colleagues and their professional organizations are making to preserve high standards of medical care. Many letters expressing sincere gratitude have been received by this committee from service physicians.

As of the date this report is written, the Wagner Bill is sleeping in committee. There is no way of knowing just when it will be scheduled for hearings. However, the sponsors and proponents of the measure are diligently at work throughout the nation to solicit public support for the bill. Presumably the matter will be brought before Congress at such time as the supporters of the bill deem opportune. The opposition, therefore, cannot afford to relax until the measure is either defeated or its death is brought about through the adjournment of Congress.

While the Wagner Bill has for the past several months been by far the most important medical legislative problem, it has by no means been the only one. More important among other matters of medical significance to come before Congress have been the continued efforts of certain drugless healers to qualify for commissions in the Army and Navy, and to qualify to treat government employees, under the United States Employees Compensation Act. Under this act, osteopaths are at present qualified, but the efforts of the

chiropractors have thus far been unsuccessful. With respect to Army-Navy commissions, Congress has authorized the appointment of osteopaths, under certain conditions, but chiropractors are not included. To date, no osteopaths have been commissioned, as none has yet been able to comply with the requirements prescribed by the armed services.

This committee has been obliged upon numerous occasions to call upon the members of the profession for assistance in legislative matters. For the generous and wholehearted response of a very large part of the profession, we are truly grateful.

Respectfully submitted,

JAMES H. HUTTON, M.D.,  
ROBERT M. HAYES, M.D.,  
HERMON H. COLE, M.D.,  
*Legislative Committee.*

#### REPORT OF MEDICO-LEGAL COMMITTEE

To The Members of The House of Delegates:

To the work of the Medico-Legal Committee has changed considerably over the past few years. Many of our members who formerly depended upon the Society for all assistance in the case of threats of malpractice, now carry protective insurance and for this, and perhaps other reasons, when threats arise our committee is not notified.

There seems, however, to be a definite decrease in the number of suits filed. At this time no cause can be assigned for this situation other than the fact that many of our members are serving in the armed forces. The character of complaints continue much the same: Fractures maintaining first place, with X-ray burns second with other scattering ones. As medical men, it seems necessary to be unceasingly on guard when listening to complaints about other doctors. A shrug of the shoulders, a lifting of an eyebrow, even silence, is sometimes construed as acquiescence to exaggerated or untrue statements. Result: many times a suit for malpractice.

The committee suffered grievous losses in the deaths of Dr. C. U. Collins of Peoria and J. R. Ballinger, who, for many years served as chairman. Question of continuing the committee in its present state has been made at various times. It might not be improper to say that, in the event the committee is abolished, other machinery should and, no doubt could, be set up to give support to any one of our members who has the misfortune to be involved in legal difficulties. One who is threatened, could probably secure competent legal advice and could also advise with some trusted colleague, yet it would seem desirable for the Society, in the person of some one designated by the House of Delegates, to give such aid and comfort to one who is harassed by threats of malpractice. This might, in a measure, lessen complaints sometimes heard of the paucity of benefit derived from mem-

bership in organized medicine as well as making for greater cohesion in our efforts to maintain a proper place in our social structure.

Respectfully submitted,  
 PLINY R. BLODGETT, M. D.,  
 DARWIN POND, M. D.,  
 T. B. WILLIAMSON, M. D.,  
 OSCAR HAWKINSON, M. D.,  
*Acting Chairman.*  
*Medico-Legal Committee.*

#### REPORT OF COMMITTEE ON MEDICAL BENEVOLENCE

To The Members of The House of Delegates:

The recent death of our chairman, John S. Nagel, as reported in the Illinois Medical Journal and mentioned in several of the reports published in this handbook, has temporarily disrupted the functioning of the Committee on Medical Benevolence, especially in regard to the established routine of approving applications for benefits as prescribed in the By-Laws of this Society.

Doctor Nagel was constantly afraid that deserving cases eligible for benefits under this plan, were not receiving the aid to which they are entitled. He continuously urged each member of the Council and others to search the state to see whether or not some physician or the widow of a former member, had been overlooked. In accordance with the established custom, when applications for aid are received, a questionnaire form is sent to a physician designated as the sponsor, to get all data concerning the financial condition of the applicant. Although keenly desirous of helping every one entitled to benefits under the plan, Doctor Nagel invariably insisted that individuals who had adequate funds should not be approved for aid.

When the questionnaire form was returned, Doctor Nagel would make his suggestions, then send the forms to each of the members of the committee. If the application met with approval, benefit payments were instituted promptly.

An illustrative case was that of a physician who had attained the age of 94, was for many years a member of the Illinois State Medical Society until compelled to retire on account of advanced age and physical condition. He moved to Florida. Some six months ago a letter was received by Doctor Nagel stating that this physician was in poor health and did not have sufficient funds to secure the proper care. Not knowing anything more about the case, the committee succeeded in locating two well known physicians who knew this elderly physician, one of them, the attending physician.

No time was lost in obtaining the necessary information through the regular form used to investigate cases, and immediately upon its return, approval was given by phone by the committee members, and the check was on its way. Although this physician received only two benefit payments, he undoubtedly received much comfort in learning

that his former confreres in Illinois had not forgotten him.

Since the death of Doctor Nagel, the Council has authorized the two remaining members of this committee to carry on. Regular monthly benevolence checks have been sent to those beneficiaries approved previously.

For years Doctor Nagel had looked forward to the time when a permanent endowment fund could be created for medical benevolence purposes and he hoped to see it grow until the income from the fund would care for the benefit payments to all approved applicants. It seems most fitting that some plan be developed by this House of Delegates to start a permanent fund in memory of Doctor Nagel. There are, no doubt, many members of the State Medical Society who would gladly donate funds for such a worthy purpose, and perhaps other individuals outside the medical profession could be persuaded to do likewise.

We have discussed this proposal with many members of this Society and have found a number who stated that they would be glad to support the project provided it met with the approval of this House of Delegates.

Since the beginning of the operation of the Medical Benevolence Fund, the Council of the State Medical Society has made two appropriations to pay the benefits to all applicants approved by our committee. We wish to emphasize once more that every cent appropriated has been used in the payment of benefits, and not one cent for administration or even postage.

In closing, we wish to pay tribute to our highly respected chairman, Doctor Nagel, who has passed away, and give assurance to this House of Delegates that it is our sincere desire to carry on in accordance with his wishes. We would emphasize the necessity of this House of Delegates using the keenest possible judgment in selecting a successor to Doctor Nagel from Cook County, being sure that the man so selected is intensely interested in the work and will do his part to make the Medical Benevolence Fund actually what it was intended to be when the By-laws of the Society were amended to make its operation possible.

Respectfully submitted,  
 CHARLES H. HULICK, M. D.,  
*Acting Chairman,*  
 HAROLD M. CAMP, M. D.,  
*Secretary,*  
*Committee on Medical Benevolence.*

#### REPORT OF COMMITTEE ON MEDICAL EDUCATION AND HOSPITALS

DR. J. P. SIMONDS, Chicago: For reasons that it is not necessary to go into this committee has not submitted a written report. This Committee deals with two separate items, medical education and hospitals. In the first place, as you all know, the hospitals are prosperous — in some of them the

daily occupancy is as much as 97.7 per cent. I am sure when some of you try to get a patient into the hospital you think it must be 105 per cent.

There is one thing which every member of the House of Delegates and every practising physician should know, that is, that pathologists are exceedingly scarce and there are very few properly trained technicians. Since this shortage has developed there have sprung up a number of technician's training schools which give very poor training. Many hospitals have had to depend upon those technicians. I hope many of you will bear with the laboratories in your hospitals because the pathologists and better trained technicians are having an exceedingly difficult time, far more difficult than the general practitioners realize.

Regarding medical education, we are having an accelerated program. What the effect will be of their having had medical education handed to them on a golden platter will have after the war God only knows. Because of the exigencies of the medical situation the pre-medical training of medical students has been very materially reduced, so that the men who are going into medical school now days have not had the training that many of you had. I do not know what effect that will have on the medical profession of the future. Heretofore, the medical schools have selected their own students. Up to the present time they have continued to do so. What will happen in the future, again God only knows.

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#### REPORT OF EDUCATIONAL COMMITTEE

To The Members of The House of Delegates:

The Educational Committee has carried on its program of state-wide educational activities in spite of some difficulties due to the war. Many doctors who so generously supported the work of the Committee by giving their time to make trips to address county medical societies and to present programs for lay organizations are now in service and the doctors at home simply have not had the time or physical energy to perform these purely altruistic services.

The Committee has continued to cooperate and assist prominent lay organizations in the state and has contacted organizations which it had not heretofore had the pleasure of serving. The medical profession has secured new friends in all sections of the state. Friendships are as important to an organization as they are to an individual and the Committee shall constantly endeavor to be of real service to these individuals and organizations.

##### *DO YOU KNOW:*

One of the important functions of the Committee has been the dissemination of information through the written word. This has been done through a mimeographed sheet known as our DO YOU KNOW column. At the present time the Committee is furnishing this material, released every other week all during

the year, to more than 3,000 persons and organizations. This number does not include 1,000 parents who receive copies distributed by the principal of a school who has the material copied as a project in school and copies taken home by the pupils. Just recently we learned of two Home Bureau secretaries who were making 18 to 25 copies of each article for their local health chairmen. It is evident that the number we mail to individuals represents a very small percentage of the readers actually reached. Many industrial plants in the state receive copies for posting on all bulletin boards.

One hundred thirty-three thousand, seven hundred and thirty copies of DO YOU KNOW were sent out in the last twelve months.

The following partial list of topics covered in the DO YOU KNOW column will indicate that the Committee endeavored to give the public and newspapers of the state information on subjects of current interest: Another Miracle (Penicillin), Giving Thanks (War and Thanksgiving), Treacherous Pneumonia, The Annual Check-up (Importance of Summer Round-up), A Tuberculosis War, Rheumatic Fever, Conserve Your Heart, Conquer Diphtheria, Weather and You, Measles, Some Body Regulators (Endocrines), Children and Parents, Colds Are Here, Are You Allergic, Carelessness, The Seventh Column, Canned Foods, Summer and Swimming, So You're Going to Study Nursing, Autopsies Are Necessary, Rabies, Hospital Visits, Have You Shared Your Blood, Radium Treatments, Cancer.

All State Legislators are on the mailing list to receive these bulletins.

The Jackson County Medical Society of Missouri has been interested in this DO YOU KNOW column. Copies were furnished that society which were referred to their radio script writer and chairman of the public policy and relations committee.

The Peoria Journal-Transcript requested this material which is to be used by it in a special feature under the sponsorship of the Peoria Medical Society. A large amount of material was sent to this newspaper on subjects relating particularly to medicine and the war effort. The editor responded that it was just what he wanted and stated that the material would be used when the feature is released.

The Science News Letter, a magazine with nationwide circulation, has commented three times during the past year on articles released by the Educational Committee of the Illinois State Medical Society.

The Public Utilities Company of Fort Wayne, Ind., requested copies of the series "Leave 'Em Where They Lie" for distribution to 100 engineers and employees of that company. Similar requests have been received from Bisbee, Arizona, and Los Angeles, California.

##### *DO YOU KNOW:*

Last Summer, Dr. George W. Post cooperated with the Committee in preparing an article presenting the fact that doctors are available for the medical care of the public. This article was entitled "Correcting an Erroneous Impression." It was sent to all newspapers of the state and was widely used. Many papers carried it as an editorial and several editors made ex-

cellent comments on the statements in the article. Copies were sent to libraries and the entire mailing list of the Committee.

#### *DO YOU KNOW:*

The Illinois Federation of Women's Clubs has been given some very definite assistance by the Committee during the year:

Speakers were furnished for meetings of health chairmen.

Programs were arranged for county and district federated club meetings.

Doctors were secured to address individual clubs.

Arrangements were made for the Legislative Secretary of the Illinois State Medical Society to take part in an audition planned for the program chairmen of the Federation.

Package libraries and radio talks were sent to many women for round table presentations; for preparation of papers on health subjects; for radio programs.

#### *DO YOU KNOW:*

The Illinois Congress of Parents and Teachers has been given every possible cooperation; this includes state officers and individual units of the Congress.

Arrangements were made for a doctor to demonstrate a proper physical examination of the pre-school child at the annual conference of Summer Round-Up Chairmen of the Association.

A letter was sent to every Summer Round-Up Chairman in the state suggesting that she communicate with the officers of the local county or city medical society in making plans for the pre-school examinations. Letters were sent to officers of all county and branch societies stating that the Committee was co-operating with these units.

Special copies of the DO YOU KNOW column were furnished all chairmen for distribution to mothers of the pre-school children in their communities.

Speakers were furnished for local Association meetings and for District meetings.

Special conferences were held with the state health and Summer Round-Up chairmen.

Use of the Committee's office was made available to the Illinois Congress of Parents and Teachers for meetings.

#### *DO YOU KNOW:*

The Committee assisted the Woman's Auxiliary whenever requested to do so.

Speakers were suggested and were secured for meetings of the county Auxiliaries and their laity day programs.

Cooperated with the chairmen of various committees.

Package libraries were furnished wives of doctors who were preparing special papers.

Furnished chairmen and individual members a large amount of material on medical legislation—material prepared by the Legislative Committee of the Illinois State Medical Society, the National Physicians Committee, and the American Medical Association.

All chairmen of auxiliary committees are on the mailing list of the Educational Committee to receive copies of all releases.

#### *DO YOU KNOW:*

The Educational Committee assisted many lay organizations:

Secured speakers and arranged programs for industrial groups, including one group of colored industrial workers.

Business and Professional Women's Clubs were given program material, speakers were scheduled and package libraries were loaned.

Office Managers Association requested a program and the Committee secured Mr. Neal to talk on legislation. This meeting created a lot of interest.

Secured speakers for the Medical Women's Association. Publicity was given to their meetings.

Speakers were secured for county Red Cross meetings.

Doctors were scheduled to take part in various programs and forums sponsored by the Y.W.C.A. and the Y.M.C.A.

Programs were arranged for Rotary, Lions, Optimist and Kiwanis Clubs.

Cooperated with the Woman's Field Army of the American Society for the Control of Cancer.

Committee approved the use of American Medical Association radio programs by the Board of Education in Chicago schools.

Arranged several demonstrations of the Kenney Treatment of Poliomyelitis.

Hundreds of telephone calls requesting information about doctors, hospitals, medical schools and medical examinations were received and inquiries referred to the proper offices.

Cooperated with the State Committee on Nutrition in scheduling programs on nutrition and health. This group furnished some excellent speakers to our Committee.

Prepared and loaned package libraries to doctors and laymen. Many students writing term papers sought use of this material at the suggestion of their physicians.

Assisted with publicity for the First Annual Clinical Conference of the Chicago Medical Society.

Arranged programs in connection with vocational guidance for schools.

Cooperated with Youth Week in Cook County in scheduling doctors to address school children.

Secured consent of doctors to deliver addresses before nurses at graduation exercises.

Two hundred and fifty doctors gave popular health talks before all types of lay audiences.

#### *DO YOU KNOW:*

The Committee assisted other departments of the Illinois State Medical Society:

Material on the Benevolence Fund of the Illinois State Medical Society was mimeographed and sent to all Auxiliaries.

Assisted the Medical Advisory Committee on Public Assistance in sending notices of meetings.

Furnished news of the state, coming meetings and death notices for the Illinois Medical Journal.

Distributed pamphlets prepared by the Committee on Maternal and Infant Health.

Assisted the Industrial Committee in preparing and mailing a questionnaire to doctors last summer.

Letters were sent to all officers of medical societies requesting information about members in service for news columns in the Journal.

Recommended legislative programs to many lay groups and furnished a speaker from the Legislative Committee of the Illinois State Medical Society. Thousands of pamphlets entitled "Mr. Quilan" and "What Does the Wagner-Murray-Dingell Bill Mean to You" were sent to laymen for distribution, and also to the entire mailing list of the Educational Committee. Copies were also enclosed with all letters going out from the office of the Committee.

#### *DO YOU KNOW:*

The Post-Graduate and Scientific Service Committee reports are given in full by their chairman and appear elsewhere in this handbook. The Educational Committee office handled the details of these two committees.

The Educational Committee obtained, the State Department of Public Health is printing, and the Post-Graduate Committee will distribute to all doctors of the state some excellent handbooks on Heart Disease, Endocrinology, The Eyes, and The Skin.

Three thousand, nine hundred and sixty-eight notices of county medical society meetings were prepared and sent to doctors. This was of great assistance to the local secretaries.

One thousand, five hundred and eighty-three Releases were sent to newspapers giving information about medical society meetings.

Obtained information from medical schools and hospitals about opportunities for doctors to attend clinics and lectures. A very fine response was received and the material was published in the Journal. Chicago offers many opportunities for doctors who may have a few hours or a day to spend in these schools and hospitals.

#### *DO YOU KNOW:*

The Committee handled the publicity for the Annual Meeting last year and obtained more newspaper comment than ever before given a meeting of the Illinois State Medical Society. A resume of how the publicity was handled may be of interest.

The first announcement of the meeting was sent to the Associated Press, United Press and Chicago newspapers on March 8th, 1943.

A letter was sent to all Committee chairmen on March 16th requesting information about any of their special activities which could be used for publicity purposes.

On March 17th letters were sent to the Commanding Officers at Great Lakes, Fort Sheridan, Navy Pier, Rantoul and Scott Field inviting the medical staffs to be guests of the Society.

On March 19th letters of invitation were sent to the officers of State Medical Societies of Indiana, Wisconsin, Michigan and Iowa.

March 30th a letter was sent to all secretaries of the Chicago Medical Society branches announcing the Secretaries' Conference.

A letter was mailed on April 7th to all doctors presenting papers at the Annual Meeting requesting that a copy of each paper be sent to the Publicity Committee for use by the press.

Special announcements were sent to the editors of bulletins of the various branches and County Medical Societies for publication in March, April and May.

Announcement of the program for the Secretaries' Conference was sent on the first of May to all secretaries and presidents of medical societies in Illinois.

Six hundred publicity sheets concerning Colonel Romulo and the Presidents' dinner were enclosed in all outgoing mail and were given to Chicago Medical branch meetings for distribution and mailed to schools and army and navy camps.

Four hundred Colonel Romulo folders were distributed at meetings of the Woman's Auxiliary.

Letter was mailed, signed by Dr. Fred Mueller, to all officers of medical societies on May 3rd again announcing the Secretaries' Conference and enclosing return postal card requesting an indication of intention to attend the meeting.

Second general announcement of the Annual Meeting was sent to 250 editors of Illinois newspapers on April 29th.

Six hundred special invitations were prepared by Dr. Camp and mailed to medical officers at Fort Sheridan, Great Lakes, Chanute Field, Camp Grant and Navy Pier.

Five hundred large posters announcing the meeting were sent to all medical schools, hospitals, army camps and medical libraries.

Three hundred large posters announcing Colonel Romulo as speaker at the Presidents' dinner were sent to all Cook County hospitals, medical schools and army camps in the Chicago area.

Four thousand, five hundred postal cards were mimeographed and mailed to all members of the Chicago Medical Society urging them to register at the meeting.

Special letters and copies of the program were sent on May 12th to all Chicago newspapers.

A letter was mailed to all city editors on May 25th thanking them for the fine coverage given the meeting.

The Chicago Medical Society office cooperated by carrying feature articles about the meeting in the Bulletin.

#### *DO YOU KNOW:*

All Divisions of the State Department of Public Health were given excellent cooperation and the Committee is indeed grateful for the help in securing motion picture films, in the special publicity given through the State Department publications, and in the willingness of the staff to address both lay and scientific groups.

The American Medical Association, particularly the Bureau of Health Education, has cooperated whenever called upon and this assistance has been invaluable.

The Navy Public Relations has given excellent help in securing actual war movies, showing the part played by medicine in the battle zones, for showing before various groups.

*DO YOU KNOW:*

The Committee appreciates the interest shown by members of the Illinois State Medical Society and the response of the public to its educational program. The Committee feels that progress has been made and during the coming months its program will be keyed with all changes and activities of the medical world.

Respectfully submitted,  
 R. R. FERGUSON, M.D.,  
*Chairman,*  
 JAMES H. HUTTON, M.D.,  
*Vice-Chairman,*  
 ROBERT S. BERGHOFF, M.D.,  
 CHARLES P. BLAIR, M.D.,  
 C. PAUL WHITE, M.D.,  
 JEAN McARTHUR,  
*Secretary,*  
*Educational Committee.*

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#### REPORT OF SCIENTIFIC SERVICE COMMITTEE

To The Members of The House of Delegates:

The work of this Committee has gone through the second year of the war uninterruptedly, with only few changes, and surprisingly enough with only minor curtailment of its activities. With roughly one-third of the medical profession in Illinois in military service, the hard-pressed members actively engaged in practice have asked for and received the same type, quantity and quality of scientific service as in the happier and easier years. This it seems to us is a tribute to both the doctors in all of our counties and to the speakers and lecturers as well who were able to carry on in spite of transportation and various and sundry other difficulties. Furthermore, it proves that monthly scientific programs are both wanted and needed, if anything more now than ever. The types of programs have naturally enough varied a bit from peace times and have been a mixture of civilian and military.

Two hundred speakers were scheduled for scientific meetings. They were asked to present the following subjects: Arthritis, Anemias, Anesthesia, Abdominal Conditions in Children, Abdominal Surgery, Allergy, Abortions, Blood Substitutes, Burns, Blood Dyscrasias, Bronchoscopy, Coronary Disease, Chest Surgery, Cancer, Colitis, Contagious Diseases, Diabetes, Endocrinology, Endocrines in Obstetrics and Gynecology, Eczema, Ear, Nose and Throat, Extensive Wounds and Compound Fractures, Fractures, Gastro-Intestinal Disturbances, Gall Bladder Disease, Gastric Ulcer, Hematuria, Hormones, Head Injuries, Industrial Medicine and Surgery, Industrial Dermatoses, Intestinal Obstruction, Infantile Paralysis, Kenny Treatment, Meningitis, Medical Legislation, Mental Health, Malaria, Migraine, Neurological Conditions in Children, Neurology, Orthopedics, Obstetrics, Plasma in Shock, Problems of the Newborn, Penicillin, Proctology, Pediatrics, Prostatic Surgery, Post-Partum Hemorrhages, Pneumonia, Surgery, Soft Tissue Injuries, Sterility, Sulfonamides, Toxemias of Pregnancy, Thyroid, Ur-

ology, Urinary Infections in Children, Varicose Veins, Venereal Disease, Vitamin K, War Problems.

The Committee assisted the following societies: Du Page, Williamson, Morgan, Champaign, Fulton, Rock Island, Macoupin, St. Clair, Will-Grundy, Peoria, Jersey-Greene, Adams, Effingham, Kankakee, Kane, Stephenson, Marion, Henry, Lee, Morgan, Vermilion, Macon, LaSalle, Bureau, Livingston, Ogle, Franklin, Douglas, McLean, Knox, Winnebago, Tri-County, Christian, Whiteside, Schuyler, Warren, Jackson, Ford, Iroquois, Sangamon, Beardstown, Sherman Hospital of Elgin, Branches of Chicago Medical Society, McHenry.

It is the opinion of your Committee therefore, that the work of the Scientific Service Committee is essential in time of war, is earnestly requested by our county medical societies and is, in spite of inherent difficulties, practical, and should be kept on as high a plane as possible so that once this war is won and our doctors return, it may meet their needs promptly, efficiently and thoroughly.

Respectfully submitted,  
 R. S. BERGHOFF, M.D.,  
*Chairman,*  
 J. H. HUTTON, M.D.,  
 J. S. TEMPLETON, M.D.,  
 F. H. FALLS, M.D.,  
 WALTER STEVENSON, M.D.,  
 HARLAN ENGLISH, M.D.,  
 H. M. CAMP, M.D.,  
*Scientific Service Committee.*

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#### REPORT OF POST-GRADUATE COMMITTEE

To The Members of The House of Delegates:

For the fifth consecutive year this Committee is reporting back to the House of Delegates on the service given to the members of the medical profession of Illinois during a current year through the medium of Post-Graduate conferences.

This past year, it was deemed prudent to limit the number of such post-graduate days to four. Accordingly and following these instructions four such days were arranged.

The first conference was held in Bloomington on November 11th. During the afternoon there were talks on "The Discriminate Use of the Sulfonamides and Blood Dyscrasias," a heart clinic with patients presented, and round tables. Following the dinner, navy sound movies were shown and Captain H. L. Dollard spoke on navy medicine.

The second conference was held at Rock Island on December 16th. The afternoon was devoted to round tables and papers on Non-Surgical Conditions of the Abdomen, Eye, Ear, Nose and Throat Conditions and The Discriminate Use of the Sulfonamides. The evening program was given over to navy medical sound films.

The third conference was held on March 22nd at Centralia and consisted of talks on Practical Points in the Recognition and Management of Coronary Disease,

The Discriminate Use of the Sulfonamides, Blood Dyscrasias, navy films and round tables. The evening program was given over to a discussion of "Surgery of the Biliary Tract."

The fourth and last conference was held in Danville on April 27th with the following program: Uses and Abuses of the Sulfa Drugs, Fractures, Diagnosis and Management, Psychiatric Problems Returned to Civil Life, Latest Trends in Infant Feeding, Endocrinology in Regard to Hypertension, Circulatory Diseases of the Extremities, Round Tables on these topics, navy movies and Tropical Diseases as They Affect Civilian Population.

It is the conviction of the Committee that this type of post-graduate service is wanted by members of the medical profession throughout the state, that it is more essential now than ever before, and that it is practical even under present circumstances.

Accordingly, we urgently recommend to the House of Delegates its continuance in its present modified form so that after the war it can be rapidly and effectively expanded.

This year, the Post-Graduate Committee in conjunction with the Department of Public Health has instituted something new in the way of post-graduate education. It has caused to be written and published, Digests on Heart Disease, Endocrinology, Diseases of the Eye, Diseases of the Skin. These digests edited in pamphlet form, are printed by and at the expense of the Department of Public Health of Illinois and a copy will be sent free to every member of the profession in Illinois. It is proposed to broaden the scope of these handy reference booklets to include general medicine, surgery and the specialties. The Committee feels deeply grateful to the Governor, the Honorable Dwight H. Green, and the Director of Public Health, Doctor Roland R. Cross, whose whole-hearted support has made this venture possible.

In conclusion, this Committee like the Scientific Service Committee is deeply grateful to all the members of organized medicine in the State of Illinois for their confidence and their valuable help and to Miss Jean McArthur and her office personnel who have made our work simple, interesting and we hope worthwhile.

Respectfully submitted,  
ROBERT S. BERGHOFF, M.D.,  
*Chairman.*

R. R. FERGUSON, M.D.,  
CHARLES P. BLAIR, M.D.,  
FRANK DENEEN, M.D.,  
WALTER STEVENSON, M.D.,  
C. O. LANE, M.D.,  
*Post Graduate Committee.*

#### REPORT OF THE WAR PARTICIPATION COMMITTEE

To The Members of The House of Delegates:

Since the work of the War Participation Committee is of a somewhat undefinable and flexible nature, it is difficult to furnish a comprehensive and adequate report of their activities the past year. They have met

several times individually or with the State Committee on Procurement and Assignment to talk over the mutual problems of the two Committees. They have cooperated with the State Committee on Procurement and Assignment very successfully and have given all possible aid to the furnishing of the physicians necessary to maintain the quota demanded by the military service.

The problems of Procurement and Assignment will undoubtedly be adequately presented by the State Committee, through its chairman, Dr. H. M. Camp. However, your Committee feels that it had some small part in making possible the fulfillment of our quota. The great problem at present is that of getting enough physicians from the metropolitan area to enter the armed service. Down state has been pretty well combed for available men and from now on, the majority of men must necessarily come from the larger metropolitan areas.

Your Committee will continue to investigate any problems presented to them and keep abreast of the developments as to what the medical profession can do to help in the winning of this war. They have given, and will undoubtedly continue to give all possible aid to any department of the government from which the request for aid may come.

Respectfully submitted,  
E. H. WELD, M.D.,  
P. E. HOPKINS, M.D.,  
G. HENRY MUNDT, M.D.,  
H. M. HEDGE, M.D.,  
H. M. CAMP, M.D.,  
E. S. HAMILTON, M.D.,  
*Chairman.*  
*War Participation Committee.*

#### REPORT OF MEDICAL ECONOMICS COMMITTEE

To The Members of The House of Delegates:

The Wagner-Murray-Dingell Bill remains the chief topic of discussion as it effects not only the economics of medicine but the practice of medicine in the United States. The bill has been reviewed in the Illinois Medical Journal several times and it does not seem feasible to use space for a review in this report.

Suffice it to say that it is undoubtedly the result of the trend during the last fifteen years for some form of socialized medicine or prepayment medical plans. It is undoubtedly true that a great majority of the American people desire some form of prepayment medical plan and hospital plan that will take care of their hospital bill and, at least, give them cash indemnity toward surgical and obstetrical bills. It has been established that hospital bills, obstetrical bills and surgical bills combined form a large part of the medical expense of the American people.

#### GROUP HOSPITALIZATION

Group Hospitalization is enjoying a steady growth despite the fact that we have several million men and women in the armed forces. It is esti-

mated that somewhere between fifteen and twenty million people have group hospitalization either through the Blue Cross Plans or old line Insurance Companies. It is evident that the people favor this type of insurance as evidenced by its steady growth, and the fact that those who are covered by such insurance feel that they have hurdled one of the many problems in their medical care.

There have been two primary objections raised against group hospitalization by members of the medical profession.

1. During the last few years hospitals in the United States have been running to full capacity and some members of the profession who have had difficulty in obtaining hospital accommodations attribute this to the fact that a large percentage of the hospital beds are now occupied by those who have group hospitalization. Surveys made estimate that the percentage of occupancy in hospitals having group hospitalization, both under the Blue Cross Plans and other plans, runs between fifteen and twenty percent; thus eighty percent of the hospital beds are still available for those who do not have group hospitalization at the present time. If one looks back to the period before the last great depression in 1929 he will find that all of the hospitals were running full capacity at that time, and if we investigate further we will find that hospital occupancy steadily increases with employment in this country. So it seems obvious that the American people utilize hospitals during periods of prosperity, and that in periods of depression hospital occupancy declines.
2. There has been some criticism that certain of the Blue Cross Plans include services that should not be included because they constitute the practice of medicine by the hospital. The chief objections have been for the service rendered by the roentgenologist. Various studies have been made and it is the opinion of those who are well versed in this matter that hospitals since the development of radiology have been billing patients for the radiological services, and group hospitalization neither instituted this procedure nor changed it since its inception.

#### PREPAYMENT MEDICAL PLANS

As a result of widespread public and professional demand for prepayment medical plans a number of these plans have been organized in recent years throughout the United States. The most notable are those sponsored by the medical societies such as those of Michigan and California. The Michigan Plan has had an unusual growth in the last two years. By recent report it seems evident that both the public and the profession are satisfied with the plan. California's growth has not been as great but reports also seem to lead to the belief that both the profession and the public are highly satisfied

with the plan. There are numerous industrial organizations throughout the country which have instituted prepayment plans both for hospital and complete medical and surgical care. It is evident from the study of these industrial plans that both the industries, which institute such plans, and the employees are well satisfied with the results.

Recently the CIO has organized through its own organization, in various parts of the United States, group hospitalization and prepayment medical plan. The reports up to the present time appear to leave the impression that the employees are generally quite well satisfied with the plan and that the doctors who participate in such plans are to a large extent quite well satisfied, but do feel that the remuneration for their services is not adequate. It is evident that this is an experiment by the CIO, and that they will continue to sponsor such prepayment plans unless the Wagner-Murray-Dingell Bill is passed. It is generally known that the CIO sponsored the Wagner-Murray-Dingell Bill. Up to the present time the A F of L has not been particularly interested in the organization of any prepayment plans for hospitalization and medical service nor have they given any definite evidence of strongly backing the Wagner-Murray-Dingell Bill.

#### REPRESENTATION IN WASHINGTON BY THE AMERICAN MEDICAL ASSOCIATION

During the last few years there has been a feeling by many members of the profession that the American Medical Association should have an office in Washington, and have a representative there, with the idea that he would be constantly on hand, and that members of Congress and other Federal agencies would know where they could go and get the facts and advice regarding medical legislation. This demand seems to be growing as evidenced by the fact that some of the western states now propose to open an office in Washington for this purpose. Last year the American Medical Association did appoint a special committee to work on legislative and other problems concerning both legislation and the economic problems in medicine, however, they did not see fit to advise the opening of a Washington office. The committee made up of outstanding men from various sections of the United States have had several meetings during the past year. Many of the State Medical Journals carry articles sponsoring official representation in Washington and many members of the profession throughout the country, not acting in an official capacity, voice themselves as approving a Washington office. It would seem that if there are a number of states who feel that we should have a Washington office that they should bring this before the House of Delegates of their societies and if the state societies favor such a program they should instruct their delegates to the American Medical Association to propose and foster such a program at the House of Delegate meeting of the American Medical Association. Some have stated that if

there is to be an office in Washington it should not be sponsored or officially manned by the American Medical Association. It seems obvious that in the final analysis the American Medical Association has to assume the responsibility for American Medicine both from the standpoint of medical education, scientific research, standards of hospitals, distribution of medical care and the formation of ethical and well guided prepayment medical plans; thus if there is a need for the Washington office it would seem that it should be the official office of the American Medical Association.

#### REPORT OF THE NATIONAL PHYSICIANS COMMITTEE

A recent report of the National Physicians Committee is both interesting and illuminating. It is undoubtedly the best piece of work done by the National Physicians Committee up to the present time, and undoubtedly, also, the best piece of work done by any organization interested in the practice of medicine and the present trends of the medical profession and the American people at the present time. Space does not allow a review of this report. Briefly the report emphasizes the fact that the American people do not want socialized medicine but that they do want and demand some form of prepayment medical and hospital insurance. The report further states that the National Physicians Committee has been instructed by its Board of Trustees to: secure office facilities, additional personnel, and take all necessary steps designed to

- (a) Encourage the medical profession to active participation in the development of plans and the more general use of existing facilities to provide for easy payment of insurance against unusual or prolonged illness;
- (b) Educate the people to the importance, nature and value of prepayment facilities (within the framework of principles approved by the medical profession), now available for meeting the cost of unusual illnesses;
- (3) Investigate conditions relating to and inform industry concerning the principles underlying sound participation with employees in prepayment plans for meeting the cost of unusual or prolonged illness and hospitalization;
- (d) Inform private insurance underwriters of the opportunity that is being offered through co-operation in nation-wide efforts to provide group insurance policies for those needing or desiring insurance against the hazards of unusual illness;
- (e) Encourage and provide state or local financial aid rather than federal subsidies to insure effective medical care for the indigent;
- (f) Encourage contributors and friends to a greater degree of participation in the efforts of the National Physicians Committee in this constructive program.

Finally if it is a fact that the American people want prepayment hospital and medical insurance at once for the major items of their medical expense then inasmuch as we now have services such as the Blue Cross Plans operating efficiently throughout the United States it might be feasible for them to institute with their hospital plan a plan for cash indemnity covering in full or in part surgical and obstetrical benefits. Many of the subscribers to group hospitalization under the Blue Cross Plan ask if it is not possible to include surgical and obstetrical benefits. As a matter of fact a large number have shifted from Blue Cross Plans to commercial insurance companies where they can secure not only group hospitalization but surgical benefits. The Blue Cross Plans have the machinery, personnel and organization to quickly put into effect any change that would receive the approval of the American Medical Association and the various medical societies. If the reports are anywhere near authentic regarding the desires of the American people, it would seem that we should use our influence to spread development of these plans and thereby preserve free enterprise in the practice of medicine, administration of hospitals, and retain our present system of medical education which is the foundation of good medical care.

R. K. PACKARD, M. D.

*Chairman,*

E. P. COLEMAN, M. D.

RALPH P. PEAIRS, M. D.

H. M. CAMP, M. D.

CHARLES H. PHIFER, M. D.

G. C. OTRICH, M. D.

C. E. WILKINSON, M. D.

W. M. HARTMAN, M. D.

E. S. HAMILTON, M. D.

*Committee on Medical Economics.*

#### REPORT OF CANCER CONTROL COMMITTEE

To The Members of The House of Delegates:

It is with a sense of gratification that your Committee on cancer submit its annual report for the year 1943-1944. The Committee's chief function during the past year has been to serve in the capacity of an advisory board on matters concerning cancer control throughout the State. Your chairman is pleased to report that at all times there has existed a spirit of wholesome co-operation between the committee and all other organizations concerned with the cancer problem, moreover there has been no major effort prepared or consummated during the year but that the advice and sanction of the committee has been asked.

The Cancer Committee of the Chicago Medical Society has been quite active during the year under the chairmanship of Dr. James P. Simonds and has carried on constructive work. The survey on cancer diagnostic and therapeutic facilities and the teaching of the subject of cancer in the medical schools

in Chicago begun last year, has been finished and the report is in the process of preparation. This report will reveal some very interesting facts including the uncovering of some glaring shortcomings on cancer diagnosis and treatment.

#### ADVISORY COMMITTEE TO THE DIVISION OF CANCER CONTROL, DEPARTMENT OF PUBLIC HEALTH, STATE OF ILLINOIS

This Committee also has been active during the year. Dr. Roswell T. Pettit of Ottawa has been made chairman of the committee and has conducted the affairs of the committee in a commendable manner. The personnel of the committee is unchanged. There is a completely harmonious cooperation between the committee and the Department of Public Health, and the committee through its interlocking memberships with the State Medical Society.

The four "Tumor Diagnostic Services" established in the down-state sections are functioning satisfactorily and are rendering valuable services not only to the sick and needy but to the medical profession. An attempt was made to establish such a service in the southern part of the State but because of the inability to obtain the services of a pathologist the project had to be deferred until such a time when a pathologist can be obtained. It is the impression of the Advisory Committee that the physicians throughout the State should utilize these facilities more freely and participate in the actual diagnostic work. Every effort should be exerted to eliminate personal factors and to form units that possess diagnostic and therapeutic skill in dealing with cancer. It cannot be too strongly emphasized that the lay population is gaining useful knowledge very rapidly and will demand of its physicians more and more in cancer diagnosis and treatment. The time has come when the physician must heed his patient's desire to know whether cancer is present and provide for an adequate examination. If the practicing physician does not provide this service to his cancer conscious patient, the patient will seek it elsewhere and will not return to the private physician because of a lack of confidence in his interest or competence. This fact is borne out by many experiences noted throughout the State.

The Advisory Committee has not recommended to the Department of Public Health any new projects for the coming year believing that if gains made can be held during the war, the situation will be in a fairly satisfactory condition. The Committee does firmly believe that the diagnostic services should be utilized more freely since the Department of Public Health supplies a considerable amount of money annually and it would like to see some definite returns on the investment. The impression gained is that the people want such a service; the services are now completely under the control of organized medicine. Unless organized

medicine co-operates, it should not be chagrined if the State steps in and assumes direction without the blessings and help of organized medicine.

#### THE CHICAGO CANCER COMMITTEE, INC.

This organization has accomplished a great deal during the past year. In spite of the fact that it was established mainly to co-ordinate cancer control activities in the Chicago Metropolitan area three cancer forums were conducted during the winter months. Two of these forums on "Facts About Cancer" were held in community centers and were a repetition of the one held at the Murphy Memorial earlier in the year. These community forums were unusually well attended, in fact at one seating capacity was inadequate. In February a forum on "Cancer of the Stomach" was held. Sub-Committees on education and the negro cancer problem have made their reports. The latter is deserving of special consideration. A sub-committee has been appointed to investigate the facilities available for cancer education and to propose new avenues of approach to the problem.

During the year an affiliation was formed between the Tuberculosis Institute of Chicago and Cook County and the Chicago Cancer Committee, Inc. The scope of this affiliation is solely on the basis of the Tuberculosis Institute contributing to the Chicago Cancer Committee, Inc., a specified amount of money annually for the purpose of assisting the Cancer Committee in the conduct of its activities. The affiliation is restricted to a three-year period. The stipulation is that the Chicago Cancer Committee, Inc., will continue to conduct its affairs unrestricted as previously and will remain an autonomous organization. Due to some wholly unauthorized newspaper publicity, the impression was advanced that the Tuberculosis Institute had absorbed the Chicago Cancer Committee. This is entirely erroneous.

The board of directors of the Chicago Cancer Committee, Inc., has been increased during the year to include Dr. Israel Davidson, Dr. Hamilton R. Fishback, Mr. Leo M. Lyons and Miss Laura Jackson. Of the board of ten as it exists now, seven members are physicians.

#### WOMEN'S FIELD ARMY OF THE AMERICAN SOCIETY FOR THE CONTROL OF CANCER

Great strides have been made by this organization during the past year. Its status at the present time is far above any level reached before and the prospects for the future are exceedingly bright. Under the unusually capable leadership of Mrs. Arthur I. Edison who has displayed amazing foresight into the future of a plan, intense interest has been aroused in not only lay organizations but in the medical profession itself.

The Cancer Prevention Clinic was opened on May 13, 1943, at the Women's and Children's Hospital. This clinic is under the direction of Dr. Augusta Webster and an advisory committee appointed by the Council of the Chicago Medical

Society consisting of Dr. James P. Simonds, chairman, Dr. Bowman C. Crowell, Dr. Frederick H. Falls, Dr. John A. Wolfer and Dr. Augusta Webster. The clinic staff consists of women physicians only and only female patients are received. Three visits are required of each patient to complete the examinations and at the conclusion a diagnosis is made. If the patient is found suffering from some disease she is advised to see her own physician to whom, at his request, is sent a report of the examinations. If the patient is indigent she is referred to a free clinic. A charge of \$5.00 is made. If the patient cannot pay this fee, no charge is made. There is present a qualified medical-social worker who studies the economic status of each patient. At the time of the writing of this report, March 15, 1944, the clinic is booked up to July 1, 1944.

In a report made before the Nine-State Regional Training School of the Women's Field Army of the American Society for the Control of Cancer on February 9, 1944, the director, Dr. Webster, stated that up to January 1, 1944, 275 patients had completed their examinations at the clinic. Of this group, 60 displayed no findings and were considered normal, 39 had benign tumors, 11 had positive malignancies, 15 were referred for biopsies and 150 had constitutional diseases other than neoplasms. The complete report which is available for inspection, is replete with interesting information and will convince anyone of the desirability of such an institution. The clinic has been so well organized and the work so well executed that it has attracted the attention of the American Society for the Control of Cancer. Mrs. Edison and Dr. Webster were called to New York in March, 1944, for special conference relative to this. Because of the nature of the effort of the Cancer Prevention Clinic, the Federated Women's Clubs of Illinois contributed \$1,000.00 to the clinic in 1943 and have made a similar contribution for 1944.

A committee consisting of Dr. Edwin Hirsch, chairman, Dr. Erich Uhlman, and Dr. Hugh McKenna was appointed to work with Mrs. Edison and Mrs. Thomas J. Byrne, Jr., deputy commander in charge of student education of the Women's Field Army to formulate plans to introduce cancer education into the schools.

During the past year approximately 4500 people have been addressed on cancer control and given cancer control literature. Twenty-five audiences were addressed by physicians. There have been 75 showings to special audiences of the three films on cancer control. There have been four radio talks by doctors on four stations, two television releases and a number of "spot announcements" on two stations. A number of relatively small groups have been addressed by down-state officers and literature supplied. The film, "Choose to Live" was shown continuously to high school students, some 90,000 students having seen it during the year. Exhibits have been displayed and literature supplied at all physicians', dentists', and hospital conventions

held in Chicago during the year and at all forums conducted by the Chicago Cancer Committee, Inc. Approximately 50,000 pieces of literature were distributed at meetings of Women's Clubs, Parent Teachers Associations and Nurses' meetings.

The Women's Field Army conducts three large and two small units that make surgical dressings for the Visiting Nurses Association. These dressings are made from salvaged linens.

It is the intention of your committee that the Women's Field Army shall be the organization whose responsibility it is to conduct lay education on cancer control throughout the State. It is the working unit of the American Society for the Control of Cancer whose chief purpose is cancer education. This organization deserves the whole-hearted support of every physician in the State. It may well be stressed that the Women's Field Army is under the direction of the Cancer Committee of the State Medical Society which acts as its executive committee.

Your Committee is definitely of the opinion that cancer control has gained a very definite foothold and that it will be one of the foremost programs before the public in the coming year. The lay population is being convinced that cancer can be cured if it is recognized early and promptly treated in an efficient manner. There is no question but that the social service agencies recognize this fact and are ready to step in and institute their programs unless the medical profession handles the situation efficiently. Likewise unless the medical profession exerts itself to provide adequate diagnostic and therapeutic facilities, the people will demand it from the State. We, as members of organized medicine, have a great responsibility placed before us. We have never shirked our duty. Let us therefore assist to the fullest extent any plans that may be outlined. Your Committee feels that it has an extraordinary task to perform in correlating cancer control projects throughout the State, to keep the program on an even keel and to formulate and advance plans and procedures that are sane and to the best interests of the afflicted.

The Committee wishes to thank the House of Delegates for its continued interest in cancer control, and for its confidence in the work of the cancer committee, the Council of the Society for its co-operation and to Miss McArthur and the Educational Committee for their sincere and unflagging assistance. The chairman wishes to express his appreciation and thanks personally to the individual members of the Committee for their co-operation and industry.

Respectfully submitted,

JOHN A. WOLFER, M. D.

*Chairman*

BOWMAN C. CROWELL, M. D.

ANDY HALL, M. D.

ROSWELL T. PETTIT, M. D.

JAMES P. SIMONDS, M. D.

# REPORT OF COMMITTEE ON CONSTITUTION AND BY-LAWS

To The Members of The House of Delegates:

This committee has been working on suggested changes in the Constitution and By-Laws in reference to "Standing Committees."

The proposed changes will be presented in detail to the House of Delegates for whatever action is deemed desirable.

Respectfully submitted,  
G. C. OTRICH, M.D.,

*Chairman.*

CHAS. P. BLAIR, M.D.,  
P. R. BLODGETT, M.D.,

*Committee on Constitution and By-Laws.*

DR. OTRICH: The Committee on Constitution and By-Laws presents the following supplementary report:

I shall read the original section and the proposed change.

Under Chapter IX — Committees, Section 1 now reads:

The standing committees shall be as follows:

A Committee on Scientific Work,  
A Committee on Medical Legislation,  
A Committee on Public Relations,  
A Medico-Legal Committee,  
A Committee on Medical Education and Hospitals,  
A Committee on Medical Benevolence, and such other committees as may be necessary.

Such committees shall be elected by the House of Delegates.

*The proposed change is as follows:*

The Standing Committees shall be as follows:

A Committee on Scientific Work  
A Committee on Medical Service and Public Relations  
A Committee on Professional Demeanor  
A Committee on Medical Education and Hospitals  
A Committee on Medical Benevolence  
A Committee on Medical Testimony, and such other committees as may be necessary.

Such committees shall be elected by the House of Delegates.

Section 2. Remains the same.

Section 3 now reads as follows:

The Committee on Medical Legislation shall consist of three members and the president and secretary of the Society, ex-officio, under the direction of the Council. This committee shall be nominated by the Council and elected by the House of Delegates.

*The proposed change is as follows:*

Section 3. Committee on Medical Service and Public Relations. The Committee on Medical Service and Public Relations shall consist of three members and the president and secretary of the Society, ex-officio. Its activities shall be carried on under the supervision and direction of the Council. Members of this committee shall be appointed by the Council.

This committee shall have charge of all matters of public policy of interest to the Society and to the state at large. It shall be the duty of this committee to

disseminate all information of interest to the medical profession to keep both the medical profession and the residents of the state of Illinois informed of medical progress in both scientific and economic fields.

Each component county society shall appoint one member to act as Adviser to this committee.

The committee shall make a report of its activities at each meeting of the Council, and to the House of Delegates at the annual meeting.

Section 4 relating to the Committee on Public Relations is deleted.

Section 5. The Medico-Legal Committee shall consist of six members, three of whom shall reside in Cook County, and three elsewhere. They shall be elected by the House of Delegates, two to be elected each year to serve for three years. At the first election under this By-Law, two shall be elected for one year, two for two years and two for three years. . . . including subsequent paragraphs down to Section 6.

This section now becomes Section 4 and is *changed to read* as follows:

Section 4. The Committee on Professional Demeanor shall consist of six members, three of whom shall reside in Cook County, and three elsewhere. They shall be elected by the House of Delegates, two to be elected each year to serve for three years. At the first election under this By-Law, two shall be elected for one year, two for two years and two for three years.

Each component society shall elect one member to serve as adviser to this committee.

It shall be the duty of the Committee on Professional Demeanor to elect a chairman on the last day of each annual session, such chairman to hold office until after the next annual meeting of this Society, or until his successor shall be elected. Said committee shall make such rules for the conduct of affairs entrusted to it herein as may be proper for the management of its business.

The committee shall make a report of its activities to the Council each year at the January meeting, and to the House of Delegates at the annual meeting.

Section 6, dealing with Medical Education and Hospitals, becomes Section 5. There are no proposed changes in this section.

Section 7, dealing with Medical Benevolence, becomes Section 6. There are no proposed changes.

A new Section 7 is proposed reading as follows:

Section 7. — The Committee on Medical Testimony shall be composed of eight members, two of whom shall be elected each year to serve for four years. At the first election under this By-Law two shall be elected for one year, two for two years, two for three years and two for four years.

The House of Delegates at the first meeting during the annual meeting of this Society shall appoint a committee of five including the President of the Society who shall act as chairman, the Chairman of the Council, and three members of the House of Delegates, to be designated as the Nominating Committee. This committee shall present the names of candidates to be

elected at the second meeting of the House of Delegates, as members of the Committee on Medical Testimony.

The Committee on Medical Testimony shall have authority to call in members who have been accused of giving improper testimony in court proceedings, to and determine whether or not any fault exists to censure and admonish if deemed advisable, and report to the State Department of Registration and Education any gross irregularities that may have arisen.

In cases of censure or admonition, the Committee on Medical Testimony shall submit its report to the Ethical Relations Committee of the component county society for whatever action is deemed advisable.

This committee shall make a report of its activities to the Council each year at the January meeting and to the House of Delegates at the annual meeting.

THE ACTING PRESIDENT: We should now have Dr. Hawkinson's report.

DR. OSCAR HAWKINSON, Chicago: About three years ago a man from the Lumberman's Mutual Casualty Company came into the office of the Chicago Medical Society and told us about a Committee on Medical Testimony in the Minnesota State Medical Society. The Bar Association was interested. A committee was appointed from the Chicago Medical Society to meet with a similar committee from the Bar Association. The joint committee met and a resolution was drawn up which was adopted by the Chicago Medical Society on May 1, 1943. This resolution was in turn presented to and adopted by the House of Delegates at the 1943 meeting and there it rested until two weeks ago. A special committee consisting of Pliny R. Blodgett, Warren Furey, and Oscar Hawkinson, was appointed to study the plan and bring in a recommendation to this House of Delegates today. The following is the report:

One year ago this House of Delegates adopted a resolution commending the Minnesota Plan of supervising medical testimony in our courts of law, and recommended that similar machinery be set up by this Society.

Following this action the Council appointed a Special Committee to study the Minnesota Plan as it might apply to Illinois, and report to this House of Delegates.

The need for this action has been apparent for many years. Abuses of medical testimony have been sometimes so flagrant as to be fine subjects for cartoonists, reaching their height about fifteen years ago when spectacular homicides were so frequent and a plea of insanity by the defense was the regular and accepted procedure. It has been said many times that the psychiatrist was the worst offender though no medical group was free from blame.

Changes in our State laws would, of course, be more effective and could well follow the customs of English courts. However, many difficulties arise, perhaps too many, when such changes are contemplated.

The Minnesota Plan has been in operation about

four years and correspondence by your Committee indicates the satisfaction of judges, trial lawyers and the medical profession.

Your Special Committee therefore recommends that a committee of eight members, to be known as the Committee on Medical Testimony, be appointed by the President and Council of this Society and approved by the House of Delegates, of these, two to be appointed for one year, two for two years, two for three years and two for four years, thereafter vacancies occurring to be filled for a period of four years. This Committee to have authority to call in members for questioning, to secure transcripts of court proceedings, examine and determine where if any fault exists, to censure and admonish or if deemed advisable to report to the State Board of Registration any gross irregularities that might have arisen. Further duties and responsibilities to be studied when this plan becomes effective.

THE ACTING PRESIDENT: This was discussed at the meeting of the Council and turned over to the Constitution and By-Laws Committee. Dr. Otrich has already read to you the proposed addition to the constitution and by-laws to cover this.

DR. OTRICH: We now come to the change regarding the Council. Article VI — THE COUNCIL — now reads:

The Board of Trustees, or, as in this Constitution and By-Laws designated, the Council, whose duties are executive and judicial, shall consist of thirteen councilors elected by the House of Delegates, and three councilors-at-large with the president and secretary ex-officio. Besides its duties mentioned in the By-Laws, it shall have charge of and control of all the property belonging to this Society of whatsoever nature, and of all funds belonging to this Society from whatsoever source.

The *proposed revision* is as follows:

Section 1. The Board of Trustees, or, as in this Constitution and By-Laws designated the Council, whose duties are executive and judicial, shall consist of thirteen councilors elected by the House of Delegates, and three councilors-at-large, with the president, the president-elect and the secretary ex-officio.

We thought it would be advisable to have the president-elect also acting in the capacity of the Council, so he would have a voice and sit in the Council.

The following change is proposed in Chapter XI — County Societies, Section 4. The section now reads:

Every registered physician holding the title of Doctor of Medicine or its equivalent, who resides in the jurisdiction of a component society, and who is of good moral character and professional standing, and a citizen of the United States, shall be eligible to membership.

It is proposed to *revise* this section as follows:

Every registered physician holding the title of Doctor of Medicine or its equivalent, who resides in the jurisdiction of a component society, and who is of good moral character and professional standing and a citizen of the United States, shall be eligible to mem-

bership. The component county society shall be the sole judge of the qualifications of its members.

Those are the recommendations from the Committee on Constitution and By-Laws. They have been threshed over in the committee.

DR. N. S. DAVIS III, Chicago: May I ask does this Committee on Medical Testimony include in its jurisdiction testimony before industrial commissions?

THE ACTING PRESIDENT: Can we have Dr. Hawkinson's opinion?

DR. HAWKINSON: It should include all that.

DR. P. E. HOPKINS, Chicago: The Chairman of the Council has a supplementary report from the Council to the House of Delegates.

The Council has considered these proposed changes in the constitution and by-laws on several occasions. Dr. Otrich has explained to you the reason for the proposed changes having to do with the first part of this report and Dr. Hawkinson has explained to you how the House of Delegates at its last meeting passed a resolution approved the so-called Minnesota Plan. It voted to set up machinery whereby such a plan could be set up. The Council was of the opinion that the only way in which such a plan could be put into effect was by a change in the by-laws. The Council recommends the adoption of these proposed changes in the constitution and by-laws.

THE ACTING PRESIDENT: This report as I understand it is referred to the Reference Committee on the report of the Constitution and By-Laws Committee, of which Dr. Robert Hayes is the Chairman. As I understand, any member of the House of Delegates may discuss this report with the Committee.

#### REPORT OF VENEREAL DISEASE CONTROL COMMITTEE

To The Members of The House of Delegates:

The Committee on Venereal Disease Control has held no meetings during the past year, nor have we been asked for our opinion on any of the policies relative to the program of this State. The following report was submitted by Dr. Soloway at our request, giving a resume of the work done by his department during the year.

HERMAN M. SOLOWAY, M.D., *Chief*

The venereal disease control program of the State of Illinois is carried on the basis of a public health problem of a communicable disease. The objectives of this control program are:

- (a) To diagnose as early as possible every case of syphilis. (Case finding.)
- (b) To institute competent medical care as soon as diagnosis is made. (Treatment provision.)
- (c) To keep infectious cases under medical care until they are no longer a menace to society or to themselves. (Case holding.)
- (d) To prevent new infections by medical, educational and legal measures. (Prevention.)

##### *Case Finding*

The objective of "case finding" is to find all possible cases of syphilis and gonorrhea. All positive lab-

oratory findings (positive blood serology and positive smears) are investigated and followed until a morbidity report is received in this office indicating that the patient is under treatment before a final disposition is made.

##### *Selective Service Blood Tests*

During 1943 there were 490,272 blood tests made of which 20,363 were positive (4.15%).

Arrangements are in the making with the State Selective Service Commission and the Sixth Service Command whereby Selective Service registrants with a positive serology and no physical disability are accepted in the armed forces. At some later date, each one is spinal punctured and those found with a positive spinal fluid which is indicative of cerebro-spinal syphilis are discharged from the army. This information is submitted to this office and upon receipt of same, a representative of the Health Department contacts these individuals for the purpose of making arrangements for them to receive Fever Therapy as a guest patient in our State Hospital.

	No. of Tests	No. of Positive Tests	Percent Positive
Chicago .....	300,368	13,390	4.46
Downstate .....	189,904	6,973	3.67
Total .....	490,272	20,363	4.15

The national round-up of Selective Service registrants infected with syphilis was instituted in the State of Illinois under the sponsorship of the United States Public Health Service, October 1, 1943. This round-up aims at the rapid medical reclassification of each registrant with a positive blood test or other evidence of syphilis.

The results of the "round-up" will be forthcoming by tabulations of the United States Public Health Service in the near future. At that time a definite breakdown of Illinois Selective Service totals will be sent to you for publication.

##### *Premarital Blood Tests*

The Illinois premarital health examination law became effective July 1, 1937. Every marriage applicant is required to submit a blood specimen and a smear to a state or private laboratory approved for this purpose by the Illinois Department of Public Health, for appropriate examination. During 1943 there were 88,820 tests made of which 2,146 were positive (2.4%).

##### *Prenatal Blood Tests*

The Illinois prenatal blood testing law became effective July 1, 1939. This law provides that all physicians attending pregnant women must submit such patient's blood specimens for examination to state or private laboratories approved for this purpose by the Illinois Department of Public Health. During 1943 there were 83,824 tests made, of which 889 were positive (1.07%).

##### *Syphilis in Pregnancy Under Care of Private Physicians*

The Illinois Division of Venereal Disease Control has received reports on 337 luetic pregnant women during 1943. These were distributed as follows:

Delivered .....	139
Pending completion of investigation ....	141
Transferred to V.D. Clinics .....	19
False Positives .....	12
Out of Health Jurisdiction .....	13
Unable to locate .....	10
Refuses recheck on child's blood .....	3

Total .....337

#### *Congenital Syphilis*

There were 48 cases of congenital syphilis, under 10 years of age, reported to the Illinois Division of Venereal Disease Control during the year, 1943.

#### *Industrial Surveys*

Industrial surveys have been carried on, at the request of manufacturing companies, in co-operation with the Division of Industrial Hygiene of the Illinois Department of Public Health. The detailed industrial program being conducted in venereal disease control includes the following:

1. Educational programs, regarding syphilis and gonorrhea.
2. Blood-testing of all applicants and employees.
3. Unless medically indicated, no refusal of employment merely on the basis of diagnosed syphilis or gonorrhea.
4. Deferring employment in cases of acute gonorrhea and early infectious syphilis until non-infectious and asymptomatic.
5. Requiring infected employees to receive adequate treatment by private physicians, public clinics or plant doctors, according to economic status of patient and availability of medical services.
6. Protection of the information because of its confidential character.
7. Follow-up services on cases which lapse treatment (to be provided by plant physicians and health department).

Complete sets of venereal disease literature were sent to each plant physician with request as to what type and number he wished for distribution to his individual plant. A set of U. S. Public Health Service posters are being sent to every plant, together with placards for men and women to be set up in lavatories. Moving pictures, "Know for Sure" and "In Defense of the Nation" are shown upon request.

#### *Epidemiology*

The success of the control of syphilis and gonorrhea depends very largely upon the careful tracing of every infection to its original source and the investigation of every person whom the patient might have exposed. The manner and method of approach of the public health officer, nurse, or field representative in making these investigations will greatly influence the success or failure of the epidemiological work. In their approach to the problem the investigators must apply the ordinary public health principles used in the detection and prevention of any infectious disease spread by personal contact. It is obvious that a disease which is transmitted almost entirely by one method should be

less difficult to follow than one transmitted by, for example, various insect vectors. The problem of conducting the investigation, however, is to be solved by individual initiative, and is not capable of solution by the application of mass methods. The division emphatically insists that all venereal disease investigations must be made with the permission and co-operation of the physician reporting and treating the case, for the workers must never lose sight of and respect for the patient-physician relationship.

#### *Co-operation with Armed Forces*

The control of venereal diseases in the civilian population has been given special emphasis in twelve areas surrounding military camps in the State of Illinois.

A definite procedure of handling all sources and contacts named by infected enlisted men was adopted at a conference with the U. S. Public Health Service liaison officer and with the military officers designated as venereal disease control officers in their respective branches of service. Referrals of sources named by army and navy enlisted men were sent directly to the local health officers, however, and the State Division of Venereal Disease Control has no means at present of evaluating the outcome of the investigations.

The State's District Health Superintendents, clinic nurses and physicians in charge of clinics, as well as venereal disease investigators are assigned to co-operate with the armed forces in the control of venereal diseases. In the twelve above-mentioned areas there are twelve District Health Superintendents, one assistant venereal disease epidemiologist, eleven venereal disease clinic nurses, sixteen clinicians and eight other venereal disease investigators. In ten of those areas venereal disease clinics have been established and three have prophylactic stations.

#### *Treatment Provision*

Treatment facilities for the medical care of indigent venereal disease cases are provided by venereal disease clinics, State Hospitals, and private physicians.

#### *Venereal Disease Clinics*

The establishment of venereal disease clinics is recommended only in those communities where little or no provision is made for the treatment of indigent syphilis and gonorrhea patients. The policy has been to establish these clinics with the co-operation of the local County Medical Society, which recommends the clinician in charge, as well as the public health clinic nurse. The fulltime township, city, county or district health officer is responsible for the administrative control of the venereal disease clinic in his jurisdiction. The township or county supervisors are responsible for the provision and maintenance of suitable quarters. The State Department of Public Health furnishes all the necessary equipment, drugs, and laboratory services, and provides for the salary of the clinician in charge and of the public health clinic nurse.

During the year 1943, there was a monthly average case load of 4,337 syphilis patients in the downstate Illinois clinics. These patients were distributed by stage of disease as follows:

Primary .....	102
Secondary .....	156
Early Latent .....	837
Late Latent .....	2,520
Cardiovascular .....	104
Central Nervous System .....	257
Other Late Syphilis .....	64
Congenital .....	297

Total .....4,337

#### *Private Hospitals*

Private hospitals have been utilized in Belleville, Decatur, Rockford, Champaign, Waukegan, Mattoon, Peoria, Watseka, Springfield, Herrin, Alton, Galesburg and Joliet for the administration of a method of rapid treatment therapy of early infectious cases of syphilis and gonorrhea.

During 1943, 155 cases were cared for. These were hospitalized for 1,121 days at the cost of \$6,560.49. These are distributed by stage, number of cases per stage, days hospitalized and cost of hospitalization.

#### *State Hospitals*

Nine state hospitals have been designated as quarantine hospitals for the isolation, treatment and diagnostic facilities for patients found infected or suspected of being infected with a venereal disease.

Five state hospitals have been designated to hospitalize positive spinal fluid cases for fever therapy.

#### *Private Physicians*

Treatment facilities have been provided for in those cities where no clinic has been established, as well as in sparsely populated areas too far distant from a venereal disease clinic or state institution, by paying private physicians \$1.00 per treatment for the care of venereal disease cases referred to them.

There were 337 cases of syphilis and 50 cases of gonorrhea treated by 30 private physicians in 1943 at a total cost of \$4,168.25.

#### *State's Drug Distribution for Venereal Diseases, 1943*

Drugs	Doses
Neolarsphenamine .....	286,600
Sulfarsphenamine .....	4,085
Mapharsen .....	81,760
Tryparsamide .....	21,090
Acetarsone .....	3,717
Aldarsone .....	1,100
Clorarsen .....	77,815
Stovarsol .....	3,710
Bismuth .....	357,475
Sulfathiazole .....	956,590

#### *Case Holding*

To keep infectious venereal disease patients under medical care until they have received sufficient treatment to be rendered non-infectious is a very important phase of the control of venereal disease. The Division's method of "case holding" includes the following measures. A monthly check-up letter which serves as a requisition for the State's anti-syphilitic drugs is sent to the physician. This letter indicates the next five weeks' treatment for the patients listed in the Division's records as being under care of the physician addressed. When returning the requisition the attending

physician indicates his choice of drugs for each patient. If any patient has interrupted the regular schedule, the physician is requested to execute a notice that treatment has been discontinued. Every effort is made, preferably through local investigators, to return the delinquent patient to the reporting physician for further treatment. By this method the State Division of Venereal Disease Control is able to have a 30-day report, from physicians receiving the drugs, of every patient under their care. Similar provisions for "case holding" are being carried out in the clinics, where nurses investigate all delinquent patients.

#### *Educational Measures*

Educational measures are being employed through cooperation with churches, clubs, schools, societies and other organizations by furnishing them with pamphlets, motion pictures, posters, and speakers on syphilis and gonorrhea. Plans are worked out co-operatively with the Departments, Division of Public Health Instruction, and with full-time local public health agencies. Responsibility for the conduct of community education projects is placed with full-time city, county and district health departments, which are assisted (particularly in the education of patients and of the families and other contacts of patients) by the Venereal Disease Clinics.

Through the above agencies, the State Department of Public Health distributed 242,765 pamphlets of the 20-odd venereal disease and social hygiene pamphlets listed in its literature catalogue. The semi-monthly bulletin, The Illinois Health Messenger, sent to a mailing list of about 30,000 has carried paragraphs, or whole articles, on such subjects as ophthalmia neonatorum, social hygiene day, venereal disease control organizations, the Illinois Laws for Premarital and Prenatal Blood Testing, the blood testing of Selective Service Registrants, the suppression of prostitution, the co-operation of tavern keepers, the availability of educational pamphlets and motion picture films, and the like. Fourteen thousand hotels, lodging and rooming houses in the City of Chicago each received a copy of "Prostitution in the War," with a plea for cooperation in the suppression of prostitution.

A complete catalogue listing the educational materials available from the State Department of Public Health was sent on request to schools, civic organizations and other interested persons or agencies.

A regular weekly transcribed, 15-minute Illinois March of Health radio program broadcast by 33 participating radio stations in Illinois had included during this period, a broadcast on venereal disease control.

Newspaper articles are prepared and released by the Division of Public Health Instruction. These included during this period releases on venereal disease control.

There were 423 film showings which were attended by 74,176 persons during this period. The Department's motion picture film library makes available to responsible agencies in this State, on loan, ten films on venereal disease control.

Posters prepared by the Division of Public Health Instruction and by the United States Public Health

Service have been distributed throughout the State, particularly to defense areas, venereal disease clinics and industries engaged in war work.

Pre-scheduled treatment outlines, based on the principles of treatment recommended by the Co-operative Clinical Group of the United States Public Health Service were furnished to Illinois physicians for the handling of cases of primary, secondary and early latent syphilis, late latent syphilis, congenital syphilis, syphilis in pregnant women, cardiovascular and neuro-syphilis.

The Division of Venereal Disease Control has continued to make available to Illinois physicians copies of six, informative, scientific publications of the United States Public Health Service.

Periodically, professional field personnel undergo an intensive training program involving methods and procedures of venereal disease control at the central office of the Division of Venereal Disease Control.

Respectfully submitted,  
ANDY HALL, M.D.,  
\*JOHN S. NAGEL, M.D.,  
I. H. NEECE, M.D.,

*Chairman.*

*Venereal Disease Control Committee*  
\*Deceased.

#### REPORT OF THE ETHICAL RELATIONS COMMITTEE

To The Members of The House of Delegates:

The work of the Ethical Relations Committee during the past year has been very light. The only case coming before them had to do with the expulsion of the member of a County Medical Society. As is probably well known to the House of Delegates, the duties of the Council and Ethical Relations Committee are definitely outlined in the Constitution and By-Laws of the Illinois State Medical Society and have to do only with the procedure under which disciplinary action is taken against a member, and nothing to do with the facts in the case. In the case above referred to, the procedure was not in accordance with that outlined in the Constitution and By-Laws, and accordingly the case was referred back to the County Society.

It is advisable that in all cases where charges are brought against a member of the Society, that the proceedings as outlined in the Constitution and By-Laws be followed exactly. Otherwise, the Ethical Relations Committee and the Council have no choice but to refer the case back to the local Committee Society for a re-hearing. Your Committee hopes that the work of the same will be as light in the coming year as it has been in the past.

Respectfully submitted,  
C. H. PHIFER, M.D.,  
R. K. PACKARD, M.D.,  
E. S. HAMILTON, M.D.,

*Chairman.*

*Ethical Relations Committee.*

#### REPORT OF FIFTY YEAR CLUB COMMITTEE

To The Members of The House of Delegates:

In January, 1938, the Council of the Illinois State Medical Society, realizing that many physicians in the state, had been practicing medicine for fifty years or more, and wishing to do them just honor, organized the Fifty Year Club. The club is a phantom organization, without officers, dues, or meetings. Those physicians, whether a member of the Society or not, who have been in the practice of medicine for fifty years or more, and are so recommended by their county society are eligible to membership.

County Societies throughout the state have been holding special meetings to honor these "grand old men of medicine," and the State Society Committee sends a lapel button and a framed certificate of membership for presentation.

We recommend that the County Medical Society in which the members reside should always sponsor the meeting in which these honors are conferred, unless they combine with some adjoining County Medical Society. As some of these doctors are quite feeble and haven't adequate facilities for transportation, the Committee should also arrange for their arrival at the meeting. I recently attended a meeting in a county where every physician in that county was present and they had a sumptuous banquet but when we had finished the banquet we discovered that the candidate was not present. After considerable telephoning, it was ascertained that his old car had broken down while enroute and it was necessary to send out a detail to bring him to the meeting.

When the State Society met at Chicago last year, the members of the Fifty Year Club had a luncheon meeting at which 65 members and guests were served. Some 15 or 20 were turned away because of inadequate space in the dining room. Members of the Club attended from several distant states. The guest speakers were Drs. Isaac A. Abt, E. B. Montgomery, Carl Black and Bertha Van Hoosen. Besides this, interesting, impromptu talks were delivered by several others.

Since the annual meeting last year in Chicago, the following changes in membership have taken place:

Chicago membership May 1, 1943 .....	108	
New members .....	30	
		138
Deaths reported .....	14	
		124
Membership as of May 1, 1944 .....	124	124
Downstate membership May 1, 1943 .....	139	
New members .....	8	
		147
Deaths reported .....	8	
		139
Membership as of May 1, 1944 .....	139	139
		263
Total membership May 1, 1944 .....	263	

It has come to my knowledge that there are a number of physicians throughout the state who are entitled to membership in the Fifty Year Club, who have not been so honored. They are men who have dropped out of practice, are not active in Society work, and have been forgotten or neglected by the officers of the Society in the county in which they live. A few others who are actively engaged in the practice of medicine do not desire this public honor for fear it will put them "on the spot" by giving publicity to their advanced age.

Whenever possible interesting highlights in the early days of medicine in Illinois are collected from these Fifty Year Club members, and the material is filed with other interesting data in the office of the Secretary of the Illinois State Medical Society.

Respectfully submitted,

ANDY HALL, M. D.,

*Chairman.*

C. E. WILKINSON, M. D.,

E. C. COOK, M. D.,

L. J. HUGHES, M. D.

## REPORT OF COMMITTEE ON INDUSTRIAL HEALTH

To The Members of The House of Delegates:

During the past year your Committee has endeavored to follow through along the lines indicated in its last annual report. There are twenty counties in Illinois which may be considered industrial. Industrial health committees have been appointed by the county medical societies in all of these twenty counties. These committees have been urged to be active in facilitating arrangement for Industrial Health Conferences and for activating all local matters pertaining to industrial health. The State Committee tries to keep in contact with such local activities and is ready to extend its cooperation and help at all times. Several meetings have been held in representative cities and others are scheduled for the last half of the year, such programs being arranged through your Committee and the Division of Industrial Hygiene of the State Department of Public Health. It is our hope that local committee organization in the counties will continue to foster Industrial Health Conferences as well as talks on industrial health matters at other meetings of the county societies. The response thus far has not been all that might be desired doubtless due to the fact that doctors are so busy and perhaps because your Committee has not followed up the matter with sufficient continuity in some of the counties.

The Council of the Chicago Medical Society passed a resolution in 1943 recommending that all its constituent branch societies appoint Industrial Health Committees and that these branches continue to devote one meeting a year to an Industrial Health Conference. A

moderate number of these branch societies have held such meetings this year.

A questionnaire was published in the Bulletin of the Chicago Medical Society to be filled out by physicians desirous of devoting some or all of their time to some affiliation with industrial medical and surgical work. The response to this questionnaire was quite gratifying, considerable valuable data thus being compiled. In the remaining nineteen industrial counties, the questionnaires were conducted by means of return-address post cards, mailed to the county chairmen so that similar data are available in all these counties.

The Educational Committee of the Illinois State Medical Society has cooperated with our Committee by furnishing a list of available speakers to give popular health talks in plants. A notice to this effect was published in the Industrial Review of the Illinois Manufacturers Association. At the Chicago Medical Society's Clinical Conference held in March, there were four papers on industrial health subjects and several on traumatic surgery. Your Committee participated in the selection of these subjects and in the choice of speakers to present them.

The Industrial Health Section appearing each month in the Illinois Medical Journal is edited by your Committee. The endeavor is made to supply this section with pertinent articles on industrial health and hygiene, rehabilitation, and traumatic surgery.

A post-graduate course in Industrial Medicine and Hygiene was held at the University of Illinois College of Medicine, presented under the auspices of your Committee, and the Industrial Health Committee of the Chicago Medical Society and was directed by the University of Illinois College of Medicine and the Division of Industrial Hygiene of the Illinois State Department of Public Health. These classes were held once a week for twelve weeks beginning January 4, 1944, and were attended by 44 registrants. Much interest was shown by those attending the meetings, and it is hoped that this course will be held annually.

The greatest barrier to the promulgation of the industrial health program is the lack of sustained interest in industrial health exhibited by most of the small corporations. The medical profession is placed in the rather anomalous position of having both to create and supply the demand for a comprehensive program in industry. It would appear that the most comprehensive field of endeavor is a planned program for the education of industrial executives and labor leaders along these lines.

Your Committee deeply appreciates the help and encouragement of the officers of the Illinois State Medical Society, the Members of the Council and the House of Delegates, the editor of the Illinois Medical Journal, the Council and officers of the Chicago Medical Society and its Branches, the officers and the Industrial Health Committees of the various county medical societies, the Division of Industrial Hygiene of the Department of Public Health, and of the Coun-

cil on Industrial Health of the American Medical Association.

Respectfully submitted,

FREDERICK W. SLOBE, M. D.,  
*Chairman,*

ROBERT I. BARICKMAN, M. D.  
FRANK P. HAMMOND, M. D.  
MILTON H. KRONENBERG, M. D.  
C. O. SAPPINGTON, M. D.  
HAROLD A. VONACHEN, M. D.  
*Committee on Industrial Health.*

#### REPORT OF MATERNAL WELFARE COMMITTEE

To The Members of The House of Delegates:

On presenting the seventh annual report of the Committee on Maternal Welfare of the Illinois State Medical Society, we wish to remind you that we have been greatly handicapped in carrying out our program the past year, due to the induction of a large number of our leading medical men into the armed forces of our country. Notwithstanding this great handicap, our work has continued with a great deal of success.

Much time has been given by this Committee, in cooperation with the Department of Public Health, in securing better working conditions of the federal service men's obstetrical set-up for Illinois.

The Committee has met three times this year. The first meeting, in July, was held in Quincy, Illinois, where the members were guests of Dr. Milton E. Bitter. A very interesting and instructive program was given, and Dr. Bitter was voted a most genial host. The other two meetings were held at the Palmer House in Chicago, the time being devoted to the Maternal Welfare and Federal Maternity programs.

The following program was approved for the guidance of the county chairmen throughout the State:

1. More emphasis should be placed on adequate prenatal care;

(a) Monthly visits up to the seventh month then every two weeks—history, physical examination including pelvic measurements, weight and dietary instructions. Laboratory work consisting of urinalysis, Kahn, blood count including red, white and hemoglobin, should be done, preferably on the first visit.

2. We recommend that each County Medical Society appoint a Maternal and Child Welfare Committee whose duties should consist of:

(a) Investigate maternal, fetal and early infant deaths for constructive study in reducing mortality. Post-mortems on neonatal deaths should be encouraged. This investigation to be carried out by the County Chairmen and other physicians appointed by local medical society; all information pertaining to this study to be kept in the hands of the medical profession.

(b) Have an adequate number of programs on maternal welfare and pediatric subjects before local society and hospital groups to meet the need of that community.

(c) Encourage the educational program among the nurses of the community by such means as moving pictures and special lectures and special invitations should be rendered to attend obstetrical and pediatric programs before medical groups.

(d) Encourage any improvement of local hospital facilities for better maternal care.

3. We suggest that the chairman of the Maternal Welfare Committee be designated as the County Chairman and be responsible for the furthering of this program in his respective county with the co-operation of the local medical society.

We suggest that he appoint a permanent Maternal Welfare Committee composed of the professional and lay groups to further the program of lay education.

4. Encourage post-graduate work and refresher courses among the physicians.

5. We recommend consultation in all obstetrical complications.

6. Encourage programs on Maternal Welfare before hospital staff.

7. We recommend that physicians stress the danger of abortions.

8. Avoid indiscriminate use of oxytocic drugs, especially in first and second stage.

We recommend that every effort be put forward to maintain the Maternal Welfare program in Illinois in the hands of the State Medical Committee.

We further recommend that the folders, "Advice to Expectant Mothers" and "Abortions," prepared by this committee be furnished by the State Society, when requested, to all practicing physicians.

Respectfully submitted,

T. B. WILLIAMSON, M. D.,  
*Chairman,*

JOHN F. CAREY, M. D.,  
*Secretary,*

A. B. OWEN, M. D.  
J. T. O'NEILL, M. D.  
F. H. FALLS, M. D.  
WORLING R. YOUNG, M. D.  
R. E. BUCHER, M. D.  
R. LYNN IJAMS, M. D.  
MILTON E. BITTER, M. D.  
LEE O. FRECH, M. D.  
W. C. SCRIVNER, M. D.  
*Maternal Welfare Committee.*

#### REPORT OF COMMITTEE ON MEDICAL CARE OF PUBLIC ASSISTANCE RECIPIENTS

To The Members of The House of Delegates:

Those of you who were members of the House of Delegates of the Illinois State Medical Society last year will recall that in a supplementary report made by this Committee during the first meeting of the House of Delegates, we stated that there had been introduced into the 63rd General Assembly then in session, Senate Bills 451-454 inclusive and House Bills 649-652 in-

clusive: That these bills provided for the transfer of the Division of Public Assistance program from the Department of Public Welfare of the State of Illinois to the Illinois Public Aid Commission: And that this would place the administration of Old Age Assistance, Aid to Dependent Children, Blind Assistance, and General Relief programs all under one administrative body.

At the same time we read to you a copy of a telegram which the Committee had just received from Mr. George M. McKibbin, Director of Finance of the State of Illinois, which stated that the administration was also planning to make provision during that Session for appropriate bills to take care of expense connected with medical care and hospital service in the last illness of Old Age Assistance recipients.

We now wish to report to you that in keeping with these statements, the 63rd General Assembly did pass the above bills, and also passed an appropriation of \$850,000 for the next biennium to provide funds for payment of bills incurred for medical care and hospital service during last illness of recipients of Old Age Pensions.

It should also be noted that other legislative bills for enacting the Blind Assistance program, then before the legislature, were passed by the 63rd General Assembly. All these bills were approved by Governor Dwight H. Green on July 15, 1943. The Blind Assistance program became administrative October 1, 1943.

With this preliminary statement regarding the transfer of these programs to the Illinois Public Aid Commission, your Committee will endeavor to give you a summary of the activities of the program as a whole since the last meeting of the House of Delegates. For purposes of simplification the report is divided into two portions:

#### Part 1.

a—29 Townships in the County of Cook (which are not included in the incorporated towns of Chicago and Cicero).

b—All the remaining counties in the State.

#### Part 2.

a—The incorporated towns of Chicago and Cicero.

The House of Delegates will recall that in our previous report we stated that in 1940 the Department of Public Welfare of the State of Illinois requested the Council of the Illinois State Medical Society to appoint an Advisory Committee on Medical Care to assist in developing a medical program for Old Age Assistance recipients in this State.

It should be remembered that the Social Security Act, passed by Congress in 1935, included three categories—Old Age Assistance, Aid to Dependent Children, and Blind Assistance. In accordance with the provisions of this Act, the legislature of the State of Illinois has passed three enabling acts: That pertaining to Old Age Assistance, approved June, 1935, later amended in January, 1936; Aid to Dependent Children, which became a law in June, 1941, and became administrative October, 1941; Aid to the Blind, passed in

June, 1943, and becoming administrative October 1, 1943. Inasmuch as people in these three categories were classified as non-paupers, it was necessary for the legislature of the State of Illinois to revise the Pauper Act. This was done in July, 1941, in order to transfer the responsibility for care of these groups from counties to townships. (This may be referred to in Par. 25, Chap. 107, Illinois Revised Statutes, 1943; also noted as Sec. 24 of "an Act to revise the Law in relation to Paupers.")

Thus it will be noted that provision was made in 1941 to place responsibility for care on local government units, namely, townships, counties under commission form of government, and cities. This was, however, a controversial point and many local governmental units refused to accept this responsibility. Further, although the responsibility for administration of medical care in final illness rested with the local governmental units, many of them did not accept their responsibility.

The Illinois Public Aid Commission, on assuming the administration of this program, immediately set up an educational program to inform the administrators of local government units of their responsibility under the Statutes of the State of Illinois; calling attention to their obligation not only in the care of paupers, but of non-paupers, including recipients of Old Age Assistance, Aid to Dependent Children and Blind Assistance; and informing them that, in instances in which it was necessary to expend money for the care of people in these categories they could be reimbursed by funds from the Illinois Public Aid Commission. It was therefore necessary to set up a definition of "final illness." The Medical Advisory Committee and representatives of the Department of Public Welfare had recommended that "'last illness' to mean the period of illness not to exceed 60 days immediately preceding and causing or contributing to the cause of the death of the Old Age Pension recipient." This definition is set forth in Official Bulletin No. 50 issued by the Illinois Public Aid Commission. The conditions under which reimbursement to townships may be expected were referred to in Official Bulletin No. 55.

Your Committee appreciates the fact that it has taken considerable time and effort on the part of the Illinois Public Aid Commission to educate the local government units to their responsibility in the complete administration of this program. It is most gratifying to your Committee to learn that township supervisors are in general agreement with the plan, and that when they have become acquainted with the policies and procedures they have, in most instances, shown a desire to cooperate. In view of the time required to develop the *modus operandi* among governmental units, all bills in connection with final illness incurred since July 15, 1943 were made retroactive to July 1, 1943, when the bill became administrative. We have been informed that there have been submitted by local governmental units to the Illinois Public Aid Commission, to date, bills for final illness expense in the

amount of approximately \$20,000. These bills have been paid by township supervisors, who will be reimbursed by the Illinois Public Aid Commission.

It should be pointed out that payment for medical care and hospital service in final illness is made from state funds as provided by the legislature of the State of Illinois. For this reason direct payment can be made to physicians and hospitals.

When this Committee was created by the Council of the Illinois State Medical Society, it was charged with the responsibility of medical care of recipients under the Social Security Act. Later its scope was broadened to include medical care under all Public Assistance programs in the State. The consolidation of all these programs under one administrative body not only simplifies administration but likewise makes it possible for the local Medical Advisory Committee to supervise and help advise on medical problems arising in each category in their county.

Your Committee has met at regular intervals with representatives of the Illinois Public Aid Commission since they took over this program. We have strongly adhered to the policy of free choice of physicians by recipients of Public Assistance programs. It is to be regretted that there are certain communities in the State where medical care is rendered by contract physicians. It has been generally found that the free choice of physicians has given a higher grade of medical care and at a reduction in cost, and that it has been far more satisfactory to both physician and patient groups. It is, however, interesting to note that in a few instances where medical care is rendered by a contract physician, the township supervisor has been persuaded to allow the recipient to continue with the physician of choice, and payment has been made to the physician by the township supervisor, even though a contract physician had been employed to care for the medical needs of the township.

The number of local government units in the State is comprised of 1439 townships, 17 county commission forms of government, and the city of Chicago, a total of 1455 governmental units. It is also interesting to note that the number of governmental units receiving State funds varies from time to time in accordance with need for funds and eligibility. Some may receive funds during a certain number of months of the year, but because of local levies may not require State funds for the balance of the year.

This is demonstrated as of June 1, 1943; there were 215 units certified for allocation of State funds for the month of May, 1943. The following counties did not receive State funds during the month of January, 1944:

Boone, Brown, Calhoun, \*Carroll, Champaign, Clay, Clinton, Crawford, Cumberland, DeKalb, Dupage, \*Edwards, Effingham, Ford, Grundy, Hancock, Hardin, Henry, Iroquois, Jasper, Jersey, \*Johnson, Kane, Kankakee, Kendall, Knox, \*Lee, Livingston, McHenry, Marshall, Mason, \*Massac, \*Menard, \*Monroe, Morgan, Moultrie, Peoria, Piatt, \*Richland, Rock

Island, Scott, \*Stark, Stephenson, Tazewell, Union, \*Wabash, Warren, Whiteside, Will, Woodford.

\*Not eligible.

The definition of ineligibility in this connection is as follows: "Any governmental unit charged with the duty of providing relief and support for all poor and indigent persons lawfully resident therein, which has failed to levy within the time that such levy is authorized to be made at least 3 mills of each dollar of the total equalized value of all the taxable property therein for such purpose."

Although these counties did not receive funds during January, 1944, this does not mean there was no contact or cooperation with the Committee.

Franklin County is the only township county in the State in which all governmental units were eligible; of the 12 units in the county, 11 received State funds in January, 1944.

There are several counties in the State which do not allow non-paupers, including Old Age Assistance recipients, free choice of hospitals in all instances; this is true in Lake, St. Clair and Winnebago Counties. This is due to the fact that there are county hospitals with which a more economical arrangement exists than can be made with private hospitals. The Committee questions the wisdom of using county institutions for hospital service for non-paupers.

In July, 1943, your Medical Advisory Committee received a communication from Mr. Edward L. Ryerson, Chairman of the Illinois Public Aid Commission, with reference to the creation of an Advisory Committee to assist in developing and carrying on the new Blind Assistance program in Illinois; stating that the Commission was desirous of arranging an effective administration which it was hoped might be accomplished through appointment of men who had high qualifications and leadership in the field of ophthalmology; that they were anxious to develop a program to cure blindness when possible, to find employment for blind persons who might be self-supporting, and to assist blind persons in the matter of financial support and adjustment.

Mr. Ryerson stated that a General Committee was being appointed on rehabilitation of the blind, and requested that the Medical Advisory Committee appoint a Sub-Committee on Ophthalmology consisting of three outstanding ophthalmologists. This sub-committee was accordingly appointed, consisting of Dr. Harry S. Gradle, Chicago, (chairman); Dr. Watson W. Gailey, Bloomington; Dr. Walter Stevenson, Quincy; Dr. Charles H. Phifer, Chicago (ex-officio).

This sub-committee has met at stated intervals to consider the procedures of the examination of a large number of applicants throughout the state who might become pensioners. The following definition of blindness, as approved by the House of Delegates of the American Medical Association in June, 1934, was adopted:

"In terms of ophthalmic measurement, central visual acuity of 20-200 or less in the better eye with cor-

recting glasses is generally considered economic blindness. A field defect in which the peripheral field subtends at an angular distance of no greater than 20 degrees may be considered equally disabling."

The functions of the Sub-Committee on Ophthalmology were defined as follows:

To recommend a list of persons from which a State Supervising Ophthalmologist may be selected;

To recommend qualifications of examining ophthalmologists, and to assist the Commission in designating physicians meeting these qualifications;

To recommend an examination procedure for determining the degree of blindness of applicants and recipients, including the use of an examination report form, method of referral, and method and amount of payment;

To recommend general policies concerning medical and surgical treatment of eye conditions, and to relate plans for such treatment to the general medical care program for recipients of public assistance;

To advise concerning the use of existing facilities for eye care, and to stimulate interest in the extension of such treatment facilities;

To review and make recommendations, upon request of the State Supervising Ophthalmologist, concerning individual problems of eye care;

To advise, upon request, on appeals involving determination of blindness;

To interpret the purposes and provisions of the Blind Assistance program, as these relate to medical care, to ophthalmologists throughout the State.

In January, 1944, Dr. J. R. Fitzgerald was appointed as Consulting Ophthalmologist, and since the program became operative he has been engaged in reviewing reports on eye examinations and making examinations throughout the State.

Prior to October 1, 1943, the Blind program was administered under the Illinois Blind Pension. After that date, the Illinois enabling act became administrative as a part of the Social Security program.

The number receiving awards in this State are as follows:

	Total	Downstate	Chicago
January, 1943	7,350	5,369	1,981
January, 1944	6,154	4,523	1,631

#### OLD AGE ASSISTANCE

Your Committee wishes to state that there is a slight decrease in the number of cases under Old Age Assistance as compared with one year ago:

	Total	Downstate	Chicago
January, 1943	150,164	102,103	48,161
January, 1944	141,937	96,822	45,115

This reduction has been due to various factors; in some instances employment; in others, the shifting of responsibility or care to some member of the recipient's family. There is also the possibility that in some cases responsibility, previously shifted, has been taken back with the idea of avoiding selective service.

#### AID TO DEPENDENT CHILDREN

The comparative figures in Aid to Dependent Children are as follows:

	Total	Downstate	Chicago
January, 1943	59,189	31,992	27,197
January, 1944	53,778	28,910	23,868

Under the Blind Assistance program, the figures are:

	Total	Downstate	Chicago
January, 1943	7,350	5,369	1,981
January, 1944	6,154	4,523	1,631

The examination of applicants has effected a reduction in this category.

#### GENERAL RELIEF

The figures for General Relief are:

	Total	Downstate	Chicago
January, 1943	126,447	64,645	61,802
January, 1944	73,931	37,531	36,400

The obligations incurred for medical care and hospitals in the State of Illinois for General Relief, during the year from January 1, 1943, to December 31, 1943, were as follows:

Medical care	\$1,235,646.28
Medical contract	41,454.72
Hospitalization	1,168,766.08

Total \$2,445,867.08

The number of people in the category of General Relief fluctuates, and there is no doubt but that this will be the category which will show an outstanding increase during the reconstruction stage after the war.

The number of governmental units receiving State funds: January, 1943, 206; January, 1944, 155.

The Committee is pleased to report that in the majority of governmental units, the free choice of physicians by recipients prevails. It is sincerely hoped that this freedom of choice may become universal throughout the State.

#### REPORT OF THE ADVISORY COMMITTEE OF THE CHICAGO MEDICAL SOCIETY ON THE MEDICAL CARE OF THE INDIGENT AND RECIPIENTS OF UNEMPLOYMENT RELIEF

This report covers medical care rendered to relief clients in the City of Chicago only.

The case load in Chicago has continued to decline. It presents an interesting study, in that it has decreased from a total of approximately 1,000,000 in 1934 to 36,400 at this time. It is to be noted that while during recent years the Chicago Welfare Administration has developed and put into effect plans for private employment of its recipients, it has, during the past year, made even more vigorous efforts for the placement of these people. The majority of those remaining on the relief rolls at this time are handicapped physically or mentally, or both. In spite of this, the Chicago Welfare Administration continues to place many of these people in employment of some type. In January, 1944, 326 persons were placed in private employment, of whom only 100 continued to require supplementary relief because of insufficient earnings.

It is also to be noted that the number of persons per case load has changed; in 1934, the average was 4.5 persons per case load; at this time, 70 per cent of

the load is one person per case. There has been a decrease in obstetrical cases in the past year, primarily because the great number of persons of child-bearing age are no longer receiving assistance. There were 213 authorizations issued for home delivery service in the period from March 1, 1943, to January 31, 1944; 396 authorizations from April, 1942, through February, 1944.

The Advisory Committee would like to state that in the early organization of this program, in 1934, the Illinois Emergency Relief Commission, in inaugurating its program in Cook County, made it mandatory that physicians secure authorization from the relief authorities before making a call on a patient, in order to be paid for the call. This was a very cumbersome method, which involved heavy administrative expense. During the ten years this program has been in effect, your Medical Advisory Committee, with the co-operation of the Chicago Welfare Administration, has sought to remove as much paper work as possible from the program, and to place the program on a basis comparable to private practice insofar as is feasible.

In 1943 a radical change from previous operation of this program became effective, and more elastic rules and regulations were formulated. This procedure enables the patient to call the doctor direct rather than through the office of the relief administration. The change has been welcomed by both patient groups and physicians. It does require that reports be submitted within 72 hours. This plan has proved more economical from the administrative standpoint. It involves less of the time of the physician, and has established a harmonious relationship between the medical profession and the Welfare Administration.

It is likewise to be noted that a wide departure from previous operation in regard to the hospital program was instituted in 1943, in that Cook County Hospital, which had previously given hospital service to some relief clients, requested the Chicago Welfare Administration to pay a per diem charge for all relief recipients in County Hospital and for the chronically ill in Oak Forest Infirmary. From June, 1943, to January, 1944, the Chicago Welfare Administration paid \$67,566 for hospital care rendered during that time. In January, 1944, the Chicago Welfare Administration incurred obligations for the care of 380 persons in Oak Forest Infirmary at the rate of \$1.09 per day. The Medical Advisory Committee has not condoned this procedure, and feels that it is not constructive.

During the past year a large number of physicians who had previously been on the roster have entered military service.

From March 1, 1943, to January 1, 1944, the visits rendered by physicians to clients of the Chicago Welfare Administration totalled 40,530 for which they received \$72,749.50. The obligations for medical care in March, 1944, are as follows:

Clinic care .....	\$149,223.95
Dental care .....	45,479.05
Hospital care .....	162,255.40
Medical appliances .....	17,629.53
Convalescent care .....	114,214.37

Physicians' fees .....	83,271.50
Nursing care .....	13,449.60
Drugs .....	34,133.11
Miscellaneous .....	21,836.89

Total .....\$641,943.40

Cases receiving nursing home care on March 1, 1943—30; number admitted, March 1, 1943, January 31, 1944—86. Total, 116.

Cases receiving convalescent care March 1, 1943—138; number admitted March 1, 1943, January 31, 1944—196. Total, 329.

This program has now been in operation for ten years. The load which originally totalled more than a million has now decreased to 36,400. The Committee has met regularly during this time and its personnel still includes some of the original members. The program has been one of the outstanding programs in the United States and has demonstrated what can be done through efficient and careful planning and co-ordination with medical and civic groups in administration of programs of this type. The cooperation of each group has been most efficient. Such problems as have arisen have been satisfactorily adjusted. Throughout this entire period the aim of the Committee has been to protect the interests of the medical profession and the patients, and to conserve public funds.

Your Committee is of the opinion that it is in this category that we will see the most rapid increase in the case load during the period of reconstruction and conversion following the war.

The Medical Advisory Committee is most grateful to the representatives of the Chicago Welfare Administration for their careful consideration of all medical policies and problems pertaining to their clients.

We regret deeply the loss of one of our members, the late President of the Illinois State Medical Society, Dr. George W. Post.

Respectfully submitted,  
JULIUS H. HESS,  
JAMES H. HUTTON,  
FRED H. MUELLER,  
CHARLES H. PHIFER,

*Chairman.*

*Advisory Committee of the Chicago Medical Society*

#### REPORT OF THE COOK COUNTY MEDICAL ADVISORY COMMITTEE TO THE COOK COUNTY BUREAU OF PUBLIC WELFARE

Inasmuch as the County of Cook has a separate Bureau of Public Welfare, it might be well to state that provisions for this organization are found in Par. 67-A through 67-J, Chap. 34 of the Illinois Revised Statutes of 1943, applying to Cook County, "to create and establish a Cook County Bureau of Public Welfare in aid of powers and duties of the County and powers and duties of the Courts, all related to Social Service functions in the County of Cook."

Your Medical Advisory Committee has continued to meet with representatives of the Cook County Bu-

reau of Public Welfare at stated intervals during the past year. We have been called upon to discuss policies in connection with medical care for Old Age Assistance recipients; to pass upon the question of physical and mental incapacity of Aid to Dependent Children applicants; and to consider problems concerning the Blind Assistance program. The entire program has necessitated a great amount of time and paper work, particularly in the endeavor to estimate medical care on the basis of a three months' period in a group of this size, which was a laborious and tedious task. Many of these cases required careful consideration with reference to medical treatment, surgery and special appliances.

The Medical Advisory Committee also meets with the Medical-Dental Sub-Committee in which a representative of the Dental Society and the Medical Society consider the furnishing of dentures to Old Age Assistance recipients. Reports of physicians and dentists are submitted in each case reviewed.

From January 1, 1943 to December 31, 1943, a total of 321 applications on the Aid to Dependent Children program were reviewed by the Committee. Of this number, 134 were certified as permanently incapacitated, 122 as temporarily incapacitated, and 49 as not incapacitated. In the previous year 642 such applications were reviewed by the Committee.

Under the program as originally set up, Chicago and Cicero were not included in the provisions for medical care and hospital service in final illness, the Cook County Bureau of Public Welfare and the Cook County Board of Commissioners having failed to make the necessary arrangements with the Illinois Public Aid Commission there for. In recent weeks, however, arrangements have been completed whereby the City of Chicago and the Town of Cicero will participate in funds provided for this purpose.

The Committee would like to call attention to the fact that the average amount of award under the Old Age Assistance program increased from \$31.54 in January, 1943, to \$32.78 in December, 1943. During the year 1943, a total of \$19,955,819 was expended in the County of Cook under this program.

Under the Aid to Dependent Children program the number of families decreased from 13,335 in January, 1943, to 10,706 in December, 1943. This is presumed to be due to increased opportunities for employment for mothers or other members of the family. During the year 1943 a total of \$4,807,617 was expended under this program in Cook County.

Applications for Blind Assistance totalled 2,632. Of this number 1,762 have been granted awards. A total of \$167,918 has been expended under this program in the County of Cook during the period from October 1 to December 31, 1943.

The following excerpts from a letter sent out in April, 1944, by the Director of the Cook County Bureau of Public Welfare to physicians participating in the medical care program of the Public Assistance Division, Cook County Bureau of Public Welfare, will be of interest:

"By arrangement between the Illinois Public Aid

Commission and the Cook County Commissioners, bills for services rendered during the last illness of this group of Old Age Pension recipients will be received by the Cook County Bureau of Public Welfare, which administers the Old Age Pension program in Cook County.

"In the 29 townships of Cook County, outside of Chicago and Cicero, arrangements for payment should be made with the Overseer of the Poor in whose community the recipient lived.

"The period of last illness is defined by the Illinois Public Aid Commission as the period of illness not to exceed 60 days immediately preceding and causing, or contributing to the cause of the death of an Old Age Pension recipient. These 60 days will include the date of death and 59 days immediately preceding the date of death.

"Payment will be made to physicians by the treasurer of Cook County in from five to eight weeks after bills are submitted. The Cook County warrant covering these payments will be mailed to the physician and will be accompanied by a memorandum identifying the Old Age Pension recipient, and the items and amounts covered by the warrant.

"The provisions of the program for medical care which have already been established for Old Age Pension recipients will, insofar as standards of quality, quantity and cost are concerned, also apply to these last illness cases. If an amount was included in the regular pension payment, or if resources of the recipient's estate or from relatives are available for payment of last illness expenses, the physician presenting a request for payment will be so notified by the district office of the Cook County Bureau of Public Welfare."

The Committee regrets deeply the loss of one of our members, the late President of the Illinois State Medical Society, Dr. George W. Post.

Respectfully submitted,

JULIUS H. HESS,  
JAMES H. HUTTON,  
FRED H. MUELLER,  
CHARLES H. PHIFER,

*Chairman,*

*Medical Advisory Committee to the Cook County  
Bureau of Public Welfare*

#### SUMMARY OF COMPLETE REPORT

In summarizing this report, your Committee would like to call attention to the following facts:

1. That the transfer of the program for administration of medical care to Social Security clients from Department of Public Welfare to the Illinois Public Aid Commission has simplified the problem of administrative work, inasmuch as all Public Assistance programs in the State are now under one division.

2. There are at this time in the State of Illinois as of January, 1944:

Old Age Assistance .....	141,937
Aid to Dependent Children .....	53,778

Blind Assistance .....	6,154
General Relief .....	73,931
<hr/>	
Total Public Assistance	
Recipients .....	275,800

3. This Committee has had frequent meetings with representatives of the Illinois Public Aid Commission at which we have discussed the medical policies for care of recipients of all Public Assistance recipients; the plans for simplification of administrative procedures covering the medical parts of the program; have reviewed medical problems referred by the Illinois Public Aid Commission; and have sought to foster the cooperation of County Medical Advisory Committees with the physicians of the State and local governmental units.

4. Persons coming under the categories of Old Age Assistance, Aid to Dependent Children, and Blind Assistance, are considered non-paupers in the interpretation of the Pauper Law of the State of Illinois as revised in the year 1941, transferring responsibility for care of these people from counties to townships. As non-paupers, they are entitled to medical care and hospital service in final illness by local governmental units, as the Statutes are now amended.

5. In view of the above, the legislature of the State of Illinois in the 63rd General Assembly, appropriated \$850,000 to meet the expense of local government units which might be incurred in giving medical care and hospital service in final illness during the next biennium.

6. In order to clarify any confusion in the minds of physicians rendering medical care to these recipients, the Committee would call attention to the following:

That in administration of medical care to Social Security clients the payment of medical care for all illness prior to final illness is paid by the recipient out of his grant. This is due to the fact that the laws governing the administration of any of the programs involved in the Social Security Act are extremely rigid and inflexible. The federal government will match State funds dollar for dollar in the amount of the appropriation by the State government *only when payments are made in cash direct to the recipient or his legally appointed guardian.* It will not match state funds otherwise paid by administrative bodies for these recipients, in this instance the Illinois Public Aid Commission. It is therefore incumbent upon the recipient to pay for medical service, the same as for other bills he incurs. His grant per month is definitely limited to his needs, the maximum being \$40.

Expense for medical care and hospital service in final illness is a different problem. This becomes the responsibility of the local government unit (township, county commission form of government, or municipality) to provide for his medical care and hospital service in final illness if the recipient does not possess sufficient funds. The payment can be made direct to the physician or hospital because it is paid out of funds provided by the State Legislature for this purpose.

7. Inasmuch as the people in these categories are classified as non-paupers, it was necessary for the State Legislature to change the pauper law to make provision for medical care and hospital service in final illness, in the case of non-paupers.

8. The Medical Advisory Committee has welcomed the assistance of the Sub-Committee on Ophthalmology in directing the medical program on Blind Assistance. This program presents multiple problems and requires, besides medical care of these people, technical knowledge of diseases involving vision.

9. The Advisory Committee appreciates the fact that programs involving Public Assistance recipients present controversial problems. The providing of medical care is, however, the responsibility of the medical profession.

10. The Committee welcomes constructive suggestions from members of the medical profession. We are of the opinion that some progress has been made during the past year toward improving the problem of medical care of Public Assistance recipients in the State.

11. It is the hope now as in the past, that the Advisory Committee may help simplify some further technical problems involved in the administration of these programs; in protecting the health and welfare of Public Assistance recipients; in protecting the interests of physicians, and in the conservation of public funds.

12. The Committee is pleased that the Illinois Public Aid Commission has conducted a constructive educational program in helping the local governmental units to assume their responsibility in the payment for medical care and hospital service in final illness of these recipients.

The Medical Advisory Committee greatly appreciates the assistance of the County Medical Advisory Committees and of the members of the medical profession rendering service to these recipients; likewise the assistance of Mr. Raymond M. Hilliard, Public Aid Director, Illinois Public Aid Commission, and Miss Pearl Bierman, Medical Social Consultant, and other representatives of the Illinois Public Aid Commission and administrators of local governmental units. The Committee requests the continued cooperation and assistance of all these people in making this program constructive and successful.

Respectfully submitted,

E. P. COLEMAN, M. D.,  
HAROLD M. CAMP, M. D.,  
EDWIN S. HAMILTON, M. D.,  
JULIUS H. HESS, M. D.,  
JAMES H. HUTTON, M. D.,  
CHARLES H. PHIFER, M. D.,

*Chairman.*

*Medical Advisory Committee of the  
Illinois State Medical Society.*

DR. CHARLES H. PHIFER: I have a supplementary report.

DR. ROBERT HAYES: I move that inasmuch as this report concerns medical matters that we go

into executive session and that Mr. Neal, Mrs. Fraser, Miss McArthur, and the alternate delegates be allowed to remain. (Motion seconded by Dr. W. C. Blaine, Tuscola, and carried.

The House went into executive session.

#### REPORT OF COMMITTEE ON ARCHIVES

To The Members of The House of Delegates :

During the past year, your Committee, especially through the efforts of Dr. Carl E. Black, has endeavored to procure pictures of all the members of the Fifty Year Club. Dr. Black expects to have these photographs on display during the annual luncheon meeting of the Club in connection with the 1944 annual meeting.

The large collection of photographs made through the years by Dr. Black, has been placed in care of the Illinois State Historical Society in their fire-proof building in Springfield. This collection is to be known as the Carl E. Black-Illinois State Medical Society Collection. As additional photographs of members and former members of this Society are accumulated, they will become a part of this permanent exhibit.

Arrangements have been made, with the approval of the Council, to have photographs taken of the membership of the Illinois State Medical Society so that a copy can be added to the archives without cost to either the individual physician or to the Society. Mr. Joseph Merante who has completed taking photographs of the members of the State Medical Societies of New Jersey and New York, is now working in Illinois and has taken photographs of the officers, members of the Council and many others. There is no obligation for any member to purchase these photographs unless the physician desires to do so. This procedure will add materially to the collection at the Historical Building in Springfield.

In addition to the collection of photographs of present and past members of the society, your Committee is anxious to procure biographical data and other information concerning pioneer physicians, their work and unusual accomplishments. All this data will become a part of our permanent archives. Many fine stories can be told of many of these men in the horse and buggy days, and will add an interesting chapter to the medical history of Illinois.

Your committee therefore desires to report progress through another trying war year, and again asks that every county society secretary or some member designated for this purpose, aid in every way possible to procure information relative to members of the medical profession in Illinois.

Respectfully submitted,

D. D. MONROE, M. D.,

*Chairman,*

P. J. McDERMOTT, M. D.,

C. E. BLACK, M. D.,

*Secretary.*

#### REPORT OF THE ADVISORY COMMITTEE ON REHABILITATION

To The Members of The House of Delegates :

On February 9, 1943, the governor organized a committee on Veterans' Rehabilitation and Employment, and asked for an Advisory Committee from the State Medical Society to help formulate plans. This Committee's function is based on the fact that nearly 100,000 soldiers are being discharged from the armed forces every month, because of physical disability which was found to be existing before their induction. These men are not disabled veterans. They are not being discharged because of any disability which occurred while in the service, and therefore, do not come under any of the present-time pension plans—nor is there any federal agency at the present time with authority to take care of them. A great many of them are neuropsychiatric cases, and many of them—while they are not suitable as soldiers—will still probably fit into the occupations which they left before entering the service.

There are others, however, who have definite physical handicaps which can be remedied. The governor's committee is desirous of having any remediable physical defect corrected so that these men can be restored to some useful form of occupation and have the ability to support themselves.

A moderate amount of funds has been made available for this purpose, and the function of your Committee was to meet with the governor's Committee and to formulate some plans in reference to the medical care of these ex-service men. The following ideas were agreed upon :

It was not regarded as being the function of this committee, to do anything for those men who are financially able to take care of themselves, and that any services rendered, be limited to those who are actually in need of this type of assistance, with the likelihood that any treatment will ultimately make them self-supporting and self-sufficient.

It was also agreed that the patient is to be given free choice of his physician. It is planned that any ex-service man who is asking for the aid of the governor's Committee and is found to be eligible for this type of service, will be asked to express his preference as to the physician who is to treat him. The physician will then be notified to this effect, and should then understand that he is the patient's choice, and that the committee has no authority to send the patient to any other doctor than the one of his own choice.

Payment for any such services will come through the office of the Governor's Committee, and will be paid direct to the doctor or hospital, as the case may be.

If the ex-service man is in need of special treatment, and no specialist in that line is available in his immediate community, it is the intention of this committee to ask the Medical Advisory Committee of the local County Medical Society, to determine, if necessary, to whom the patient should be sent.

A fee schedule was agreed upon, and the one which our committee recommended, and which the Governor's Committee accepted, was the one that had been used by the United States Veterans' Bureau for the past several years. This fee schedule is about the average charge for similar services throughout the State. In some sections, the regular fee is a bit higher, and in many others, it is lower. Your Committee feels that this will be as nearly satisfactory to the membership at large, as any fee schedule which would be within our power to obtain.

The demand for this type of service will probably be rather limited, but your Committee feels that the most important thing accomplished was the establishment of the policy giving the patient the right to free choice of physician, and that anything controversial will be referred to the Medical Advisory Committee of the local County Medical Society.

Respectfully submitted,

E. P. COLEMAN, M. D.,

*Chairman,*

FRANK DENEEN, M. D.

ELMER E. NYSTROM, M. D.

\*JOHN S. NAGEL, M. D.

*Advisory Committee on Rehabilitation.*

*\*Deceased.*

#### REPORT OF COMMITTEE TO COOPERATE WITH A. M. A. COUNCIL ON MEDICAL SERVICE AND PUBLIC RELATIONS

To The Members of The House of Delegates:

This committee was formed after the 1943 meeting of the House of Delegates of the American Medical Association, at which time the Council on Medical Service and Public Relations was organized. This committee was formed in order to co-operate with the Council of the American Medical Association and to act as a liaison committee between the American Medical Association Council and the County Medical Societies of the State of Illinois.

During the past year, the major portion of the work of the Committee has been to follow the organization of the American Medical Society Council and to learn of the nature and scope of its activities. The progress of the American Medical Association Council has been slow and definite policies have not as yet been decided. This Committee, as well as the officers of the County Societies have received the regular bulletins of the Council for Medical Service and Public Relations and it is expected that each recipient has read them carefully.

As mentioned above, the progress of the Council part in regard to Public Relations has not progressed as rapidly as some of the members of the medical profession have desired and as a result, there has been considerable agitation throughout the nation for the immediate opening of a publicity office at Washington, preferably, under the direct supervision of the Council on Medical Service and Public Relations, but under other auspices if necessary. This subject came to a head at the meeting in Chicago on February 13th

at the Conference on Medical Service, when the plans of the Western Health League and the Northern Indiana Society were explained to those in attendance. There was clear evidence that the rank and file of the medical profession were heartily in favor of the opening of a publicity office by the American Medical Association in Washington and it's to be hoped that this desire will be supported strongly at the annual meeting of the House of Delegates of the American Medical Association to bring about such action. If this is done, in the opinion of your Committee, there will be no reason for an office to be opened by the Western Health League or the Northern Indiana Society. We feel that it is advisable for the members of the Illinois State Medical Society to maintain a neutral attitude in regard to joining either one of the new societies which are at present in the formative stage.

Your Committee is making a survey of the state to determine both the needs and the desires of citizens as to planning some form of health insurance for the citizens of Illinois, under the support of the Illinois State Medical Society. This would be similar to some other state plans, such as the Michigan plan which has been explained to the members of the House of Delegates on several occasions. In the event that the survey is completed prior to the meeting of the House of Delegates, it is quite probable that a supplementary report by your Committee as to their findings will be presented on the floor of the meeting of the House of Delegates.

Respectfully submitted,

E. H. WELD, M. D.

PERCY E. HOPKINS, M. D.

G. HENRY MUNDT, M. D.

HAROLD M. CAMP, M. D.

E. S. HAMILTON, M. D.,

*Chairman.*

*Committee to Cooperate with A. M. A. Council on  
Medical Service and Public Relations.*

DR. E. S. HAMILTON: I wish to call your attention to the fact that in the report on Page 54 we prognosticated that it would be possible that there would be action by the American Medical Association to set up a Washington office. On April 7th the Washington office was opened.

#### REPORT OF THE EDITOR

To The Members of The House of Delegates:

Once more it is our pleasure to submit an annual report relative to the Illinois Medical Journal and its progress throughout another trying year. As was reported to you a year ago, it has been the policy of your editor, as well as that of the Editorial Board, the Journal Committee, and the Council from which we all receive orders as to Journal procedure, to co-operate in every way possible with all governmental agencies responsible for the welfare of our troops, their activities and other matters pertaining to the war effort. You have no doubt noticed that many releases from these agencies have appeared in the Journal at frequent intervals.

As you know, there has been a delay in receipt of your Journal during the past year. Although as in former years all material for the next issue is in the hands of the printers by the last day of the month, on account of shortage of printers as well as of many critical materials essential to the work of a modern print-shop, it takes longer to publish the approximately 9,500 copies than in normal times.

We have endeavored in every way possible to cooperate with all orders of the War Production Board, especially with an actual shortage of paper and all critical materials, yet in complying with these orders the number of scientific articles and other essential data appearing each month has not been reduced materially.

While some Journals are now publishing from one to four scientific articles in each issue, the Illinois Medical Journal has been publishing the usual number, varying of course, with the length of the papers and other material which must appear. We have been most fortunate in receiving many excellent papers for publication, even though so many of our members are in the army and the navy.

The Editorial Board composed of some outstanding men in different specialties of medicine, has met at rather frequent intervals to discuss many subjects in connection with this Journal, and to endeavor in every way possible to improve it. It is the usual policy to have a joint meeting of the Journal Committee and the Editorial Board. There are many problems of mutual interest to both groups, and we have found it definitely advantageous to hold these joint meetings.

All advertising material is considered critically and a definite routine has been established especially before new advertising accounts are accepted. First the business manager of the Journal is instructed to confer with someone in authority connected with the A. M. A. Co-operative Advertising Medical Bureau to get the opinion of that group. If nothing unfavorable is received a copy of the proposed advertisement is submitted with the pertinent information, to each member of the Journal Committee to get the opinions individually of this group.

Last fall in an editorial which appeared in the Journal of the American Medical Association the Illinois State Medical Society and its Journal received a severe criticism relative to the advertisements which are published. Some statements were made which we believed were not justified, so an editorial appeared in the next issue of our Journal giving our side of the story. It is true that the Illinois Medical Journal has not joined the Co-operative Medical Advertising Bureau of the A.M.A., as we have facilities for procuring our own advertisements and are not compelled to publish any approved group as submitted by that Bureau. Likewise, this Society has never insisted that only Council accepted products may be advertised as would be the case if we joined the A.M.A. Bureau.

The Council on Pharmacy and Chemistry of the A. M. A. does not approve certain endocrine products and many other products which are in general use by well trained physicians. The records will show that

certain products are not approved one year, yet perhaps a year later have been accepted. The mere acceptance in the opinion of many who have used the product does not necessarily add to its therapeutic value. On the other hand, a careful investigation will elicit the information that a number of products are advertised in some of the Co-operative Medical Advertising Bureau member publications which are not approved for the Illinois Medical Journal. During the past year the Journal Committee has eliminated some advertisements which formerly were carried in our Journal, and during the past three years more than a dozen of our former accounts were closed.

Although our Journal has been accused of having for its primary interest, the maximum income from advertisements, this is not at all the case. Through the interest and unusual efforts of our business manager, L. E. Malley, the Journal has done quite well in its advertising receipts. On the other hand, even though a greater income was received during the past year than for any previous year, the Committee and the Editorial Board have been most critical in their acceptance of new accounts. They have no apologies to offer for those accepted within the past fiscal year. The February 1944 Illinois Medical Journal carried more advertisements than any other issue, yet the issue carried the usual number of scientific articles and all other material as regularly published.

With several thousand Illinois physicians on the various fronts in the war zones, we have endeavored to see that each member receives the Journal regardless of where he may be stationed. It is true that many times these men in service may go several months without receiving the Journal, then perhaps several copies will be received at one time. Whenever changes of address are received, corrections are made accordingly on our mailing lists. We will greatly appreciate having any physician knowing of a change of address of a member in service report to the Editor promptly so that the proper corrections may be made. We would urge that each county secretary report regularly the addresses of their members in service.

During the past year we have endeavored to enlarge the "News of the State" section of the Journal. Once more we will ask secretaries and other members to send in any information of interest relative to physicians throughout the state.

The Committee on Industrial Medicine has worked diligently each month getting their material edited and many complimentary statements have been received from various parts of the country relative to the importance of these articles. This is especially true in war time when so many physicians have had to do more industrial work than ever before.

During the past year the Journal has carried more death notices than in recent years. We would ask each County Society secretary to report deaths of members promptly, as occasionally no word is received of the death of a member for several weeks, and in certain cases months have elapsed before the information reaches us.

### Summary

1. The Illinois Medical Journal has endeavored to present timely scientific articles each month in addition to the many releases which have been published pertaining to the medical profession and the war effort. It has been the earnest desire of those responsible for its publication to co-operate thoroughly with the government in every way possible.

2. The past year has been the best in the history of the Journal from the standpoint of advertising income, although more conservatism has been exercised in the selection of advertisements than in previous years. One reason for the increase in revenue is the lowered overhead, as the Journal does not pay commissions to advertising solicitors as was formerly the case.

3. It is not the desire to run this Journal as a money-making proposition, but to render the maximum service to the physicians of Illinois who actually, through their society affiliations, own the Illinois Medical Journal.

4. The Journal Committee and the Editorial Board hold regular meetings to discuss matters in connection with the Journal, and endeavor to improve it in every way possible.

5. The assistance of many county society secretaries in sending news notices pertaining to members is herewith gratefully acknowledged. We need this assistance, and it is an important factor in the improvement of our Journal, making it a more important part of the State Society.

6. In closing, your Editor desires to thank individually and collectively the members of the Journal Committee, the Editorial Board, the Council, and many others for their co-operation and encouragement, without which a successful Journal would not be possible.

Respectfully submitted,  
HAROLD M. CAMP, M. D.  
Editor.

### REPORT OF THE WOMAN'S AUXILIARY

To The Members Of The House Of Delegates:

As president of the Auxiliary to the Illinois State Medical Society, I wish to submit the following report:

#### 1. BOARD MEETINGS—

Four meetings of the State Board of Directors of the Woman's Auxiliary were held during the year, including Post-Convention and Pre-Convention.

#### 2. ORGANIZATION AND MEMBERSHIP—

The Woman's Auxiliary to the Illinois State Medical Society is in its seventeenth year and has a membership of 800, distributed among eighteen county auxiliaries. There has been no change in the number of counties organized in the past year. Most of the counties are paying the State and National dues for the members whose husbands are in the armed forces.

#### 3. BENEVOLENCE FUND—

All Auxiliaries have been asked to contribute to this fund. I have made this one of my main objec-

tives. One county that had disbanded, sent a check for \$25.00 to be used for the Medical Benevolence Fund. A Chicago physician made a personal gift of \$250.00 to the Benevolence Fund, requesting that Cook County receive the credit. Our records, as of March 1, 1944, show \$1,000.00 paid to the Medical Benevolence Fund.

#### 4. PUBLIC RELATIONS—

Our State Public Relations program, lists of services offered to lay organizations from the Educational Committee of the Illinois Medical Society, and catalogs on sound and silent motion picture films from the Department of Public Health was sent each county president and Board member. These have been found exceedingly useful. Talks on the Wagner-Murray-Dingell Senate Bill No. 161, Recruitment and the Student Nurse Cadet Corps, have been given in many counties. County Chairmen have been urged to procure physicians as close to their counties as possible, for their Relations programs.

#### 5. LEGISLATION—

The Board of Directors of the Woman's Auxiliary to the Illinois Medical Society endorsed the resolution adopted by the Council of the Illinois Medical Society, opposing the passage of the Wagner-Murray-Dingell Social Security Bill No. 1161. A letter opposing this bill, with the endorsed resolution, was sent to the senators, congressman-at-large and the members of the House of Representatives. We received eighteen replies. A letter with these resolutions was sent each County President, asking that their county endorse it, and that a letter opposing the bill be sent to the members of Congress from Illinois. Through the efforts of every Auxiliary member, we have done our part to oppose this bill.

#### 6. HYGEIA—

We have introduced *Hygeia* to new members every year by placing it in schools, libraries, hospitals, physicians' reception rooms, and at Public Relations Day programs. Many of these have been gift subscriptions. Through the increased efforts of our State and County *Hygeia* chairman, the value of *Hygeia* as a means of promoting health education has markedly increased.

#### 7. PRESS AND PUBLICITY

We have urged all counties to forward news to our State Chairman. This year, our items seem low because counties are having fewer meetings, but are remaining intact.

#### 8. WAR PARTICIPATION—

Our members have co-operated in the following war activities: Red Cross, blood banks, first aid classes, teaching home nursing and the first aid, motor corps, books for camps, making scrap books, placing *Hygeia*, *Reader's Digest* and other magazines in camps, helping entertain our boys in uniform, and giving their help in stamp and bond drives. We have co-operated with the National Auxiliary in giving information on the U.S. Cadet Nurse Corps program.

### 9. AS PRESIDENT—

I have attended regular meetings of my Bureau County Auxiliary and visited the following counties: Cook, Henry, Peoria, St. Clair, Sangamon, Stock Yard Branch of Cook County, Livingston, Will-Grundy, and Vermilion.

I have also attended public relations programs at Cook, Henry, Peoria and Bureau counties, represented the Medical Auxiliary at an all-day session of Illinois War Council (Woman's Division), serving as vice-chairman; I was also a guest at the banquet of the Woman's Field Army for the Control of Cancer (Illinois Division), and at the banquet of the Federation of Woman's Clubs. These banquets were attended by state presidents of various organizations, and this is the first time that the Medical Auxiliary was represented.

I have written three articles for the Illinois State Journal, one to the Chicago Bulletin and to the Peoria Bulletin, on Auxiliary work, and an article on Benevolence to the Peoria Bulletin.

I have had the privilege of talking on Benevolence at various county meetings, but had always requested that they first invite Dr. John S. Nagel.

A meeting has been held with every State Standing Committee Chairman, and I have given my assistance whenever needed.

Whenever it seems feasible, I have attempted to follow the National Auxiliary program, have attended all meetings of the Board of Directors of the Auxiliary to the American Medical Association.

The past few weeks have been given entirely to our Convention plans, meeting with Dr. Harry M. Hedge and Mrs. Frederick Tice.

On behalf of the Woman's Auxiliary to the Illinois State Medical Society, I wish to take this opportunity to thank you for your co-operation. We are grateful for the advice and guidance of our Advisory Committee.

Respectfully submitted,

LOUISE NIX,

*President.*

### REPORT OF GENERAL CHAIRMEN COMMITTEE ON ARRANGEMENTS

To The Members of The House Of Delegates:

Members of the Illinois State Medical Society, Ladies, Distinguished Guests, and Gentlemen:

Again after another year of conflict on all sides, with greater strain put upon the men at home than has ever been experienced in our generation and probably in any previous time, we come to the One Hundred and Fourth Annual Meeting of the Illinois State Medical Society. There is no time that the summing up of the great advances of modern medicine has been more imperative nor more sought than now. When our troops and fellow physicians are covering the world in service to mankind, not only of our Allied forces and civilians but to those of the Axis as well, we need to sit by for a few

days and take account of what it all means and what we may profit by their experience.

The Program Committee has worked hard and long to bring to this meeting topics that are timely and full of vital interest. The Orations in Medicine and Surgery have been most carefully assigned and planned. The General meetings have been enlarged upon and to no great sacrifice of the section meetings. The Annual Dinner on Wednesday night will be a pleasure for both the members and their ladies and friends and I am sure will be memorable in its tone and notes of accomplishment.

We are certainly fortunate in these days to be able to have such a place to meet as has been chosen where all the meetings, exhibits, and conferences may be held under one roof and within easy-access of each other.

I wish to express my sincere thanks to the many chairmen who have worked hard, written many letters and made many telephone calls that their department might function in harmony and to the profit of all attending.

To the State Office and its directors much of the credit is due for the success of the meeting for they have been most cooperative and willing in their advice and stenographic assistance.

I feel that every Committee has well in hand the work it is to do and there seems to be a harmony of effort that augurs well for the success of this the 104th Annual Meeting of the Illinois State Medical Society, I thank you for the confidence entrusted to me in selecting me as the General Chairman and trust that the results will justify the trust imposed.

Respectfully submitted,

HARRY MALCOME HEDGE,

*General Chairman*

*Committee on Arrangements.*

THE ACTING PRESIDENT: The Secretary tells me there is no unfinished business, so we will pass to new business. May I call Dr. F. P. Hammond, Chairman of the Resolutions Committee, to come up and receive the resolutions as they are presented. Are there any resolutions?

DR. R. K. PACKARD, Chicago: I appeared before the Council of the State Society this morning and discussed with the Council in general some of the items of this resolution; I suggested to the Council that the resolution be presented to the House of Delegates this afternoon. The Council passed a motion authorizing me as Chairman of the Medical Economics Committee to present the resolution. I should like to have it distinctly understood that the Council did not approve of the resolution nor did the members of the Medical Economics Committee approve it. The resolution is presented primarily to create some discussion and I hope many members of the Society will appear before the Resolutions Committee and discuss this resolution because of its intent.

### 1. PREPAYMENT PLANS FOR HOSPITAL AND MEDICAL CARE

Whereas, there is a growing tendency on the part of

the public for prepayment plans for hospital and medical care; and

*Whereas*, the American Medical Association has approved Group Hospitalization plans and cash indemnities for medical fees; and

*Whereas*, there is a growing demand among the subscribers for hospital care that medical indemnities be included; and

*Whereas*, Group Hospitalization plans throughout the country are studying the feasibility of such cash indemnities, subject to the approval of State and County Medical Societies;

*Therefore be it resolved*, that the House of Delegates of the Illinois State Medical Society approve the plan in principle and the Chairman of the Council appoint a Committee to cooperate with the Hospital Service Plans in Illinois, in developing a program for the inclusion of voluntary medical indemnity benefits, and that this Committee report to the Council of the State Society as soon as feasible and carry out such instructions as the Council may authorize for the consummation of this plan.

DR. J. C. ELLIS: I wish to present the following resolution from the DeKalb County Medical Society regarding the function of the American Medical Association.

**2. LACK OF CONFIDENCE IN THE WAY THE AMERICAN MEDICAL ASSOCIATION HAS ADVANCED THE CAUSE OF AMERICAN MEDICINE BEFORE THE LEGISLATIVE BODIES OF THE NATION AND THE PUBLIC**

*Whereas*, the DeKalb County Medical Society at its last regular meeting has declared by a unanimous ballot that it lacks confidence in the way that the American Medical Association has advanced the cause of American medicine before the legislative bodies of the nation and to the American public, this failure harming all American physicians.

*Therefore, be it resolved*, that the delegate of the DeKalb County Medical Society to the next session of the House of Delegates of the Illinois State Medical Society be instructed to present this resolution for its consideration and action.

THE SECRETARY: I have two or three resolutions that were sent to me. The first one is from the Nebraska State Medical Association. We are informed that the Nebraska State Medical Association at its recent annual meeting approved this resolution and asked that it be referred to the House of Delegates of other societies.

**3. MATERNAL AND INFANT CARE FOR WIVES AND INFANTS OF ENLISTED MEN**

(From the Nebraska State Medical Association)

*Whereas*, the Maternal and Child Health Committee of the Nebraska State Medical Association, recognizes the positive need of assistance to servicemen of the four lower grades who are wholly unprepared to meet the needs of maternal and infant care; and

*Whereas*, the Council feels that the present E.M.I.C. program is entirely unsatisfactory and seems to represent a regimentation insofar as the practice of medicine is concerned; and

*Whereas*, there already exists in the "Bureau of Allotments" ample facilities for the disbursement to dependents of such funds as Congress may allocate, and it has been suggested that the proposed program can be more easily and economically administered directly through the "Bureau of Allotments"; and

*Whereas*, other state medical associations have already pronounced the present E.M.I.C. program as it now exists as an entering wedge for State Medicine in its worst form;

*Now therefore be it resolved* by the Council of the Nebraska State Medical Association, in meeting assembled on February 6, 1944, that the present E.M.I.C. program be brought to the attention of the House of Delegates of the Nebraska State Medical Association at its next annual meeting; and

*Be it further resolved*, that we hereby suggest that the "Bureau of Allotments" shall, upon receipt of an affidavit signed by any licensed physician in the state in which he resides certifying that an enlisted man's wife is within two months of her estimated date of confinement, forward to the wife such monies as Congress may decide necessary to cover medical, hospital and nursing attentions during pregnancy and delivery; and we further suggest that a similar method of furnishing an affidavit be adopted in disbursing funds to meet the costs of attention to the children of enlisted men of the grades specified.

THE SECRETARY: I have another resolution which is quite similar. The following resolution was passed by the House of Delegates of the Minnesota State Medical Association on April 13, 1944 at their annual session in Rochester.

4. *Whereas*, the program now in operation for maternal and infant care for wives and infants of enlisted men in the four lower grades is unsatisfactory to the medical profession, and

*Whereas*, the emergency provisions for the carrying on of the program as now in operation expire June 30, 1944, be it therefore

*Resolved*, that the Council and House of Delegates of the Minnesota State Medical Association recommend that the medical profession cooperate with the present program until its expiration date on June 30, 1944, but also urge Congress to abandon the program as now constituted on that date, and be it further

*Resolved*, that under any new program after June 30, 1944, the benefits be designated supplemental aid and take the form of an allotment for medical, hospital, maternity and infant care, similar to the allotments already provided for the maintenance of dependents, leaving the actual arrangements with respect to fees to be fixed by mutual agreement between the enlisted man's wife and the physician of her choice, and be it further

*Resolved*, that the American Medical Association be urged to present to the appropriate committees of Congress a concrete plan embodying this principle, to the end that the present and ultimate best interests of the wives and infants of men in service be served during the present emergency.

THE SECRETARY: I have a resolution approved by the Chicago Medical Society which we are asked to present.

5. *TRANSFERENCE OF HEALTH ACTIVITIES NOW BEING CONDUCTED BY THE CHILDREN'S BUREAU OF THE DEPARTMENT OF LABOR TO THE UNITED STATES PUBLIC HEALTH SERVICE*

The following resolution was adopted by the Council of the Chicago Medical Society at its meeting held February 8, 1944.

*Whereas*, members of Congress, when indicating their own feelings of gratitude toward men in the armed forces, undoubtedly express the sentiments of Congress and of the country at large; and

*Whereas*, pursuant to such ideas the Congress has appropriated money to provide for obstetric and pediatric care for the wives and babies of men in certain pay grades in the armed forces; and

*Whereas*, that idea has met no opposition so far as we are aware from any source; and

*Whereas*, some medical men have expressed the feeling that this program should even have been extended to include some of the lower ranking officers; and

*Whereas*, such a program should and, we believe, could have been administered without friction and with a maximum of efficiency; and

*Whereas*, this has not been true because of certain activities of employees of the Children's Bureau, these activities being as follows:

Premature publicity, having the effect, if not the purpose, of making the program more difficult of performance,

Apparently attempting to discredit with the public the very profession and its members who are to render this care,

Imposing the wishes of these employees on the entire profession of a state and its Department of Public Health,

Threatening that money provided by Congress to pay for care would not be spent in this state unless these wishes were complied with,

Issuance of regulations that render it difficult to put this program in effect in some states because directives from the Children's Bureau conflict with state laws. During the period when a State Board of Health was taking steps to put the E.M.I.C. program in effect, the impression was conveyed, intentionally or otherwise, by news releases from the Children's Bureau that the objection of the medical profession to the program was responsible for the delay.

*Whereas*, the evidence seems to indicate that the Children's Bureau is inclined to disregard the wishes

of congress, makes little or no effort to cooperate with the medical profession or State Departments of Health but instead seeks to, or at least makes no effort to avoid, placing both in a bad light before the public; and

*Whereas*, said Bureau seems to attempt to reduce wives of men in the armed forces to the level of indigents by having them treated in clinics and hospitals which are designed to care for paupers and indigent persons; and

*Whereas*, the Children's Bureau seems more interested in imposing its own ideas on the families of men in the armed forces and on the medical profession than it does in seeing that adequate care is promptly provided for the wives and babies of men in the armed forces; and

*Whereas*, the acts and policies of the Children's Bureau seem inimical to the best interests of the persons this program was designed to serve;

*Now, therefore be it resolved*, that the Illinois State Medical Society express its disapproval of the conduct of the Children's Bureau, and be it

*Resolved*, that we petition Congress to remove from the Children's Bureau further administration of this program and other programs of similar nature, and that all health activities now being conducted by the Children's Bureau of the Department of Labor be transferred to the United States Public Health Service, and be it further

*Resolved*, that this resolution be forwarded to the United States Senators and Representatives in Congress from Illinois, and that copies of this resolution be sent to the Councils of every State Medical Society.

DR. I. H. NEECE, Decatur: I wish to introduce the following resolution which was adopted by the Macon County Medical Society, Decatur, May 5, 1944.

6. *OPPOSITION TO FURTHER COVERAGE BY THE E.M.I.C. PROGRAM*

*Whereas*, many programs of too inclusive nature are being formulated for medical care, and

*Whereas*, individual initiative and personal responsibility are being lost through extension of so-called Social Security, and

*Whereas*, actual social security is the right of self-maintenance through a job with adequate income to insure independence, and

*Whereas*, the control of medical policy finding and administration is rapidly passing into lay hands under federal control, and

*Whereas*, physicians are too busy with medical practice to spend time with red tape procedures required by bureaucratic programs, and

*Whereas*, such medical programs are not democratic and tend toward further extension of coverage without showing factual needs, therefore

*Be it resolved*, that the House of Delegates of the Illinois State Medical Society voice its opposition to all socio-medical programs framed without active participation and cooperation of organized medicine, and

*Be it resolved*, that we oppose acceptance of any further extension of coverage in the federal E.M.I.C. program now in operation, and

*Be it further resolved*, that a copy of this resolution as adopted, be transmitted to each of the several other state medical societies, to each of the component units of this Society, and to the American Medical Association for their consideration.

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THE SECRETARY: I have received within the last few days a copy of a bill introduced by Hon. A. E. Miller of Nebraska, who is a medical man. He has presented within the last ten days this bill which if enacted would take all health activities from the Children's Bureau of the Department of Labor and transfer them to the office of the Surgeon-General of the Public Health Service. He has submitted a letter and a copy of the bill which we will turn over to the Resolutions Committee. Congressman Miller asked that some recognition be given to his endeavor.

7. H.R. 4663. *A BILL TO TRANSFER TO THE FEDERAL SECURITY ADMINISTRATOR AND THE PUBLIC HEALTH SERVICE, RESPECTIVELY, THE FUNCTIONS OF THE SECRETARY OF LABOR AND THE CHILDREN'S BUREAU OF THE DEPARTMENT OF LABOR WITH RESPECT TO HEALTH, AND FOR OTHER PURPOSES.*

Whereas, H.B. 4663 introduced in the House of

Representatives April 25, 1944 is intended to effect a transfer of all health activities now being conducted by the Children's Bureau of the Department of Labor to the Department of United States Public Health Service under the direction of the Surgeon General, therefore be it

*Resolved*, that the House of Delegates of the Illinois State Medical Society go on record as unqualifiedly approving and supporting the passage of the Bill and be it

*Resolved*, that the Secretary be instructed to so inform all Senators and Representatives from the State of Illinois of this action and be it further

*Resolved*, that the Committee on Medical Service and Public Relations be requested to exert all reasonable effort to influence each and every individual member of the Illinois State Medical Society to do likewise.

DR. G. C. OTRICH, Belleville: I would like to ask the Secretary if he had a resolution from California.

THE SECRETARY: None received to this date.

THE ACTING PRESIDENT: If there is no other business I shall entertain a motion for adjournment.

DR. MATHER PFEIFFENBERGER, Alton: I move we adjourn until 9 o'clock Thursday morning. (Motion seconded by Dr. Robert H. Hayes, Chicago, and carried.)

The first session of the House of Delegates adjourned at 5:07 P.M.

**NOTE:** *The minutes of the second session of the House of Delegates will appear in the August issue of The Journal.*

# Industrial Health

Committee On Industrial Health — Frederick W. Slobe, Chm., 2024 South Western Ave., Chicago, Frank P. Hammond, H. A. Vonachen, R. I. Barickman, C. O. Sappington, Milton H. Kronenberg.

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## FURTHER OBSERVATIONS ON LUNG CHANGES IN ELECTRIC ARC WELDERS

O. A. SANDER, M. D.

It has become quite generally recognized that both acute and chronic lung changes may occur when welders are exposed to highly concentrated fumes. The acute reactions have been studied at length in the past, especially the metal fume fevers, and will not be given any detailed consideration here. It is the chronic changes which have been recognized most recently and about which there still appear to be doubts as to their proper evaluation. Their visualization on chest roentgenograms has been of especial interest to the author since 1935, when we x-rayed our first group of welders showing these changes.

It will be recalled from our original report that the lung changes as seen on chest roentgenograms consisted of discrete nodular shadows uniformly distributed throughout both lungs, resembling somewhat the appearance of classical silicosis. The borders of these round shadows were generally more sharply defined, however, than are silicotic nodules and the hilum shadows less prominent. Histologic sections from the post-mortem material of one of these cases showed iron pigment deposits in the lymphatics surrounding the blood vessels and it was concluded that these iron collections were responsible for the nodule-like shadows seen on the x-ray films. These iron deposits had resulted from the use of bare metal electrodes on very confined jobs in the manufacture of gasoline and milk tanks for trucks. It was emphasized that

the iron appeared to excite no reaction of any kind and evidence of fibrous tissue proliferation was entirely lacking. These pathologic findings have thus far not been confirmed in this country, but Koelsch, a German clinician, appears to be in complete agreement in his 1941 report, which included one post-mortem study. Enzer now has three additional post-mortem studies with the same findings, which he will publish soon. In his animal experimentation with welding fumes, Gardner was unable to find iron deposition in the lung lymphatics of his animals, but roentgenograms of their lungs after removal from the body showed slight evidence of metal accumulations. These appeared to be due to large collections of phagocytes containing iron granules and lying within the alveolae. There seems to be no good explanation as to why these phagocytes had not migrated into the lymphatic channels, as had occurred in our human case. These animals demonstrated conclusively, however, that when finely-divided particulate iron is inhaled into the lungs in large doses, it is not absorbed into the blood stream, as minimal doses undoubtedly are. Harrold, Meek and McCord's animal experiments also proved this.

From all parts of the country, reports are coming in of finding these nodular shadows on the chest roentgenograms of electric welders. We have seen many since the previous report in 1938 and many more will undoubtedly come to light within the next few years because of the vast amount of welding being done today. Britton and Walsh in 1940 found 24 with pseudo-nodulation out of 256 welders. Out of approximately 500 welders' films we have seen, the incidence of nodular shadows was less than five

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Presented at the Eighth Annual Meeting of Members of the Industrial Hygiene Foundation of America, Inc., November 10-11, 1943, at Pittsburgh, Pennsylvania.

percent, there being very few industries in our district requiring confined welding. Because of this, we had concluded that deposition of iron pigment would not occur to a visible degree when the work was not confined.

Recently, however, a number of cases have come to light elsewhere in which deposits have become visible in welders working on auto and jeep frames, where the work was not at all confined except for canvas partitions between groups of welders. Out of the first 80 welders x-rayed from this department, 54 showed definite small nodular shadows. We had the opportunity of reviewing a group of these films, all of which were typical of iron deposition. In two of them there had been only 6 and 7 years of exposure, at exactly the same type of welding in this plant and with no previous fume or dust exposure. This was most baffling and difficult to explain, except on the basis of excessive quantity of fume production and improperly placed ventilation. Overhead exhaust hoods over each partitioned section may have tended to increase the fume concentrations at the breathing levels of the men. This probably has been corrected by the recent replacement of the overhead hoods with down-draft and side-draft ventilators. Apparently, iron deposition in the lungs may occur when the welding is not especially confined. Ventilating engineers would do well to consider the proper placement of the exhaust hoods in their solution of this problem.

As to the diagnosis and terminology to be used for these lung changes, they almost invariably are mislabeled "silicosis," "atypical silicosis," and even "miliary tuberculosis" when first seen by roentgenologists and general physicians. This is understandable when one realizes how recently the pathology first became recognized and how closely the x-ray appearance resembles silicosis. These iron deposits may properly be diagnosed as "siderosis" provided the concept of fibrous tissue proliferation is excluded. Because of the erroneous implication of associated fibrosis with any of the "-oses", it has been suggested that it would be safer to simply call this change "iron pigmentation." Koelsch calls it "iron pneumoconiosis," which carries the same objectionable implication of fibrous proliferation. My personal preference is to name it "siderosis of welding" and to emphasize and re-emphasize that there is no fibrous tissue proli-

feration associated with iron deposits alone or associated with welding alone.

When the atmosphere also contains silica dust in sufficient concentrations, however, as occurs when welding or burning are done in foundry cleaning rooms, a combined silicotic nodulation and iron pigment deposition may develop. The silicosis in such cases may be suspected if the hilum shadows are definitely enlarged, if the borders of the nodules are less sharply defined than with iron deposits alone, if other employees in the cleaning room have been known to have developed silicosis, and if the atmosphere is known to contain silica dust. The term "sidero-silicosis" may then be properly used. We have observed many such cases in foundry cleaning rooms, particularly among cutters and burners, both electric and acetylene. Before we realized that the associated iron deposition was accentuating the silicotic nodulation, we were at a loss to explain why these cutters and burners developed nodular shadows earlier and to a more intense degree than did other employees in the cleaning room.

Even at post-mortem, it was not realized in the past that the pigmentation seen in these cases was anything but carbon, because special staining for iron was not done. Potassium ferrocyanide stain, giving the Prussian blue reaction with iron, is necessary to establish the true nature of the pigmentation. This procedure is recommended as routine in all post-mortem examinations where previous x-ray films have shown nodular shadows in the lung fields. Specific connective tissue stains also should be used to establish the presence or absence of fibrosis in these cases.

As to whether or not our welders doing the confined work in the tanks have had adequate protection since 1935, 3 cases have shown increasing deposition of iron and suggest that further dilution of the fumes is necessary. If this is not possible, it may be necessary to exhaust the fumes or to provide the men with ventilated helmets or positive pressure respirators. Although none of these workers have had any kind of respiratory symptoms, we believe that it is safer to keep the fume inhalation below the concentration at which iron accumulation in the lungs will occur. There, of course, is no reason why one should expect progression with such a

complete absence of fibrous tissue proliferation around the inert pigment deposits.

One of our cases confirms in a human the findings of Gardner and McCrum with their experimental animals that electric welding and siderosis do not predispose the lungs to tuberculosis. This man appears to have arrested a reinfection tuberculosis lesion spontaneously while continuing his welding and in spite of the iron deposits in his lungs. This is the only case of tuberculosis we have observed in a welder who had not had silica exposure as well.

As far as other evidence of lung irritation is concerned, we have not found any remarkable degree of bronchitis in welders generally, including those who obviously have had intense fume exposures. Nor have the many welders we have interviewed had such complaints as "severe cough following confined work, nausea and vomiting, blood spitting, hoarseness, difficulty in breathing, chest pain, etc.," as have been ascribed to welding by a few investigators. We never have heard of a case of pulmonary edema or "welder's pneumonia" in our district. Reports from numerous shipyards have indicated that a number of cases of acute irritations of the throat, with cough, bloody sputum and hoarseness have been found, which have cleared up promptly after a few days away from excessive fume concentrations. Too often, however, local physicians have advised such patients to discontinue their trade altogether, which seems unwarranted on the basis of the known data and experience.

The only possible explanation for the absence of these acute irritative symptoms in our own welders is that their confined work seldom has been prolonged. They are inside the tanks no more than fifteen minutes at a time, spending the next thirty to forty-five minutes working outside of the tanks. Also the fumes generated by this work apparently do not contain sufficient amounts of the known irritant metals or gases to have caused acute reactions. None of the industries in which we have observed the welders require the welding of special alloys containing any appreciable amounts of cadmium, arsenic, or chrome, for instance. The electrode coatings also appear not to have added any significant amount of irritating substances to the fumes, because the welders we have seen

have been using coated rods exclusively for the past ten years.

It should not be inferred from these statements that we feel that all welding is entirely innocuous as far as effect on the lungs is concerned. Quite the opposite, we know that exposure to highly concentrated fumes may be definitely harmful under certain circumstances, especially when they contain appreciable amounts of irritant substances, and certainly it is anything but pleasant for anyone to be working in dense clouds of any fumes for prolonged periods of time. Every effort should be made to dilute all fumes before they are inhaled, either by adequate and properly placed ventilators or by the use of ventilated helmets or positive pressure respirators. The prevention of siderosis and the acute respiratory reactions can be accomplished without too much difficulty or expense and it is recommended that active preventive measures be taken when a suspected hazard exists.

#### SUMMARY AND CONCLUSION

1. Electric arc welding which is done in large rooms and where the fumes are not allowed to concentrate excessively near the breathing level, does not cause any lung changes even after many years of work.

2. Excessive inhalation of concentrated fumes, especially in confined and unventilated spaces, may cause siderosis in the lungs in from 6 to 10 years. The siderosis so produced consists only of inert iron pigment deposits in the lymphatics, without fibrous tissue proliferation and without progressive changes after exposure is materially decreased.

3. Electric welding or siderosis do not predispose to tuberculosis or other lung infections.

4. The siderosis of welding causes no functional impairment of the lungs and, therefore, no symptoms referable to the lungs.

5. Acute irritative phenomena of the throat may occur with too prolonged confined work in dense clouds of fumes, but these appear to be transitory reactions leaving no residual impairment.

6. Any respiratory involvement may be prevented in welding, even with the most confined and prolonged work, if proper precautions are taken, either by adequate exhaust ventilation, ventilated helmets, or positive pressure respirators.

## HEALTH PROBLEMS OF WOMEN IN INDUSTRY

Dr. C. O. Sappington has conducted a practical investigation of health problems of women in industry under the auspices of the Industrial Hygiene Foundation of Pittsburgh.\* The results of his very comprehensive survey are published in the January bulletin issued by the Foundation. Dr. Sappington's summary and suggestions at the end of this bulletin are as follows:

1. There is a decided trend toward the employment of women in greater numbers in all types of industries; if the plans of the War Manpower Commission continue as indicated, there will be a material increase in the employment of women by the end of 1943, compared with the number employed as of July 1, 1943.

2. Without detailing the jobs which women are said to perform efficiently and safely at the present time (lists of which can be obtained from different agencies), it is now stated that women can do about 80% of the jobs ordinarily done by men.

3. Except in instances where women have been used for a period of 20 to 25 years continuously in industrial establishments, it is not possible to even approach a standardization of policy with respect to personnel, medical and safety. These supervision programs take time, effort and consideration, but pay excellent dividends, according to those who have them.

4. The increased employment of women will quite likely bring about favorable changes and progress in methods of protection against potentially hazardous exposures ordinarily resulting in sickness and accidents of industrial type: the mechanization of processes; and more adequate provision for and maintenance of plant sanitation and housekeeping.

5. The employment of women in large proportionate numbers in jobs which require close application and good eyesight, such as inspection, precision work, color identification, and the like, should give considerable impetus to the more extensive application of better industrial eyesight programs.

6. The occurrence of pulmonary tuberculosis, especially showing a high rate in younger women generally, both inside and outside of industry, should give added incentive to prevention and case finding procedures.

7. The specific physiological problems of women, menstruation, pregnancy and menopause, do not appear to be a cause for much concern, except as represented by the phase of social adjustment, although there are naturally individual cases which need specific advice and treatment. Unless excellent supervision can be provided, supplemented by appropriate professional consulting services, it is believed that it is inadvisable at present to allow the pregnant woman to continue to work, contingent of course upon circumstances in individual cases where it may be assured that small children of pregnant mothers will receive proper care.

8. The more extensive use of women counselors, women physicians, and women safety directors, is suggested, and this might include women gynecologists for referred cases. It is realized that comparatively few of these are available, but training programs should so be arranged that more will be available. Personnel, medical and safety courses could well be devised to admit and graduate more women, as it seems obvious that women employees will more readily unburden their personal difficulties to professional women in these phases of industrial life, than to men. Moreover, pelvic examinations and other intimate relationships may thus be more easily handled, providing the right type of professional personnel can be found available.

9. Sick absenteeism in women employees has always been higher than in men, especially in the long-time brackets. Generally speaking, accident frequency and severity is lower in women than in men employees. There is a general trend toward the increase of both nonindustrial sickness and industrial accidents in both men and women at the present time. This proportionate increase, however, is not as great as the apparent upward trend of the proportionate increase in absenteeism due to personal reasons, especially in women, for reasons of industrial and domestic adjustment. This is a problem which demands more critical study before any specific suggestions can be given as to control.

10. Industrial feeding seems to be well managed with few exceptions; from time to time there may be local difficulties as to supplies, and this problem may become increasingly important in direct ratio to the prolongation of the war.

11. Health education programs in general were not done as well as they might have been, according to the statements made in the interviews; as before mentioned, this is due primarily to lack of sufficient time and professional personnel.

12. Dermatitis does not seem to be an outstanding problem of women employees, for the reasons which have already been noted in the report.

13. The tendency of family physicians and general practitioners to certify employees for leave of absence, transfer of job, and change of shift, seems to be predicted upon a rather small amount of information regarding actual industrial conditions and their effects upon diseased states or disturbed physiology; no immediate improvement may be expected, with private practitioners as overworked as they are, although in some instances in this survey it was learned that considerable improvement has been made in the betterment of cooperative relationships between community and industrial physicians, when the latter have had the time and the patience to explain the effects of work on health, as well as the effects of health on work.

14. Women will continue to be used in greater numbers in industry during the rest of the war, and after the war will be found in greater numbers in industry generally than during the previous peacetime. This is true of all types of industry, including the heavy in-

\*Medical Series, Bulletin No. VII; January, 1944, Industrial Hygiene Foundation, Pittsburgh, Pa.

dustry groups. (In some localities, it has been prophesied that approximately 50% of the women will leave industrial employment as soon as the war is over; it is likewise the opinion of some officials that considerable numbers of women will be relieved of employment because of the necessity of rehiring returning service men.) However, it is believed that women have made for themselves a permanent place in industry, of course in a varying percentage of employment in different localities and according to different types of manufacturing and other factors, as already discussed; it appears that industrial personnel whose responsibility it is to work with women applicants and employees will do well to continue to minimize the difficulties of the absorption of women into industry."

#### BRITISH JOURNAL OF INDUSTRIAL MEDICINE

The first issue of the *British Journal of Industrial Medicine* was published in January 1944. This is an official journal of the British Medical Association and it is interesting to note that this Association has taken cognizance of the importance of the specialty of industrial medicine.

The following is an excerpt from the "Foreword" by Lord Moran: "An industrial doctor, whether whole time or part time, will neglect his unusual opportunities if he fails to study working conditions. He must learn to control the hazards of industry, he must be versed in the diseases and poisons peculiar to the lives of the men for whose well-being he is responsible; he ought to be skilled in the treatment of accidents. But first and last he must be a good doctor. If he is, all the rest will be given unto him.

"He will enjoy singular opportunities of clinical study. James Mackenzie went to St. Andrews that he might keep a small community under unbroken observation for a period of years. The industrial doctor will have such a community under his hand. He will be able to follow the history of the men employed by his firm and at the end he ought to be able to contribute to our knowledge of the natural history of important diseases such as duodenal ulcer. The long-established Medical Branch of the Post Office has shown how this can be done and what may come of it.

"But the industrial doctor of the future must have close links with the main chain of general medicine.

Academic centres of industrial medicine will arise, as in the new organization at the London Hospital, and the whole-time industrial medical officer of the big firms may probably become in time a specialist and consultant in this field. Thus the structure of industrial medicine will be similar to the general structure of the medical services of the country, working along parallel lines for the good of this important section of the community. It is because of all this that an authoritative scientific journal dealing with these matters is more than welcome. And I have tried to indicate my belief that the *British Journal of Industrial Medicine* should be of the very highest assistance not only to the whole-time industrial doctor but to every doctor whose patients are engaged in industry and who himself may, from time to time, be called upon to advise in local industrial problems."

#### CARBON TETRACHLORIDE POISONING

Alice Stewart and L. J. Witts, in discussing chronic carbon tetrachloride intoxication under a grant by the Medical Research Council, come to the following conclusions:

"1. A detailed examination has been made of workers at a factory in which exposure to carbon tetrachloride was heavy and persistent owing to wartime difficulties of ventilation.

2. Over a period of two-and-a-half years more than half of the workers had been discharged or transferred to other employment on account of symptoms attributed to carbon tetrachloride poisoning.

3. Evidence of hepatic or renal damage was rarely obtained. The characteristic symptoms were mental hebetude and gastro-intestinal upset.

4. Investigation of the gastro-intestinal tract by fractional gastric analysis, radiography and gastroscopy, showed gastric hypersecretion, and hypermotility with accompanying irritability and irregular contraction throughout the alimentary tract.

5. No visual effects were detected.

6. The symptoms cleared up in a few days or weeks after removal from exposure, though some disturbance in the alimentary pattern might remain for some months.

7. It is suggested that both the mental hebetude and the gastro-intestinal upset are due to the action of carbon tetrachloride on the central nervous system."



# News of the State

## PERSONALS · COMING EVENTS · MARRIAGES · DEATHS

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On June 5th the army announced appointment of 19 medical specialists as civilian consultants to the office of the surgeon general. They included Dr. Walter L. Palmer, University of Chicago, consultant in gastro-enterology.

Capt. Earl H. Blair who practiced medicine in Chicago for 15 years before entering the Army Medical Corps in October, 1942 has been named assistant medical officer for the Illinois Selective Service.

Major Perry V. Wagley has been appointed commanding officer of the Fort Sheridan hospital, succeeding Col. George C. Cook who retired early in June. Col. Cook has been post surgeon at Fort Sheridan since September, 1939. Major Wagley formerly medical superintendent of the Michigan state hospital at Pontiac, Michigan, has been serving as psychiatrist for the 6th service command's rehabilitation center at Fort Sheridan.

The National Foundation for Infantile Paralysis has made a grant of \$175,000 to Northwestern University for a five year program of research. The program which will be directed by Dr. Andrew C. Ivy, chairman of the department of physiology, will be carried out on a co-operative basis with various departments of Northwestern's medical school. It is to start July 1. Cooperating with Dr. Ivy will be Dr. Lewis J. Pollock, Dr. William F. Windle, Dr. Horace W. Magoun and Dr. John S. Coulter, all of Northwestern.

James Firoved, Lt. M C USNR, formerly of Monmouth has recently been promoted to Lt. Comdr. and is now stationed in the South Pacific area.

Hugh Macdonald, of Evanston, Major US Army Corps, has been promoted to Lt. Colonel and is on the Anzio Beachhead.

Major Robert H. Sykes, former Evanston physician, has been appointed state Selective Service officer.

Lt. Col. George S. Littell, army medical corps, will serve as executive officer of the Vaughan General hospital, which is nearing completion near Maywood. He recently returned from nearly two years' service in the Southwest Pacific. He was deputy chief surgeon of the American forces in that theater.

Dr. John A. Wolfer, director of the tumor clinic of Northwestern University School of Medicine, was awarded the Alumni medal, highest honor conferred by the Northwestern Alumni Association, for outstanding cancer research. The presentation was made on June 10th at annual Alumni day activities on the Evanston campus.

Dr. Howard Taylor Ricketts, discoverer of the cause of Rocky Mountain spotted fever and typhus fever, to which he fell victim, was honored in Chicago on June 12th. His portrait was unveiled in Archibald Church library of Northwestern University Medical School. Painted by Oskar Gross, the portrait was presented by Dr. Henry T. Ricketts on behalf of his mother, widow of the noted physician. It was accepted for the medical school by Dean James Roscoe Miller. Dr. Irving S. Cutter introduced Dr. Ludwig Hektoen who spoke on the life and achievements of Dr. Ricketts.

Capt. Frederick S. Marks, 28, assigned to an army medical corps unit at Anzio beachhead in Italy, has been missing in action since May 26, the war department has notified his wife, Dr. Mary Martin Marks, member of the Staff of St. Luke's Hospital, Chicago. He was a graduate of Northwestern University Medical School.

The two newest military doctors of the Robert family, 3812 North Keeler Avenue, Chicago have been promoted to the rank of major. Promoted were Doctors O. Theodore Robert Jr. and Norman B. Robert. They were formerly in practice with their father at 2000 W. Irving Park Road before the war. Major O. Theodore Robert Jr. is now stationed at the Bruns General Hospital, Santa Fe, N.M., as chief of general surgery. Major Norman B. Robert is in command of the medical division stationed at Amarillo, Texas.

Dr. R. H. Main of Barry, Illinois has been presented a gold medal and a certificate of membership in the 50-year club of the Illinois State Medical Society. The presentation was made in his home by Dr. N. W. Kuntz of Barry and Dr. Dechow of Kinderhook. Dr. Main was graduated from Washington University at St. Louis in March, 1894 and began the practice of medicine in April of the same year in Barry.

Dr. W. R. Roberts of Cissna Park has been presented the gold medal and certificate of membership in the 50 year club of the Illinois State Medical Society. The Iroquois County Medical Society held a dinner in his honor early in June. The center piece for the guest table was a huge angle food cake topped by 50 candles. Presentation of the certificate and pin to Dr. Roberts was made by Dr. Edwin S. Hamilton, Kankakee, Councilor of the District.

Dr. William F. Petersen of Chicago gave the First Richard H. Jaffe' Memorial Lecture of the Institute of Medicine of Chicago on June 23rd at the Palmer House. His subject was "Organic Variability and Heart Disease."

The Chicago Society of Allergy has elected Dr. L. E. Markin as President, Dr. Helen C. Hayden, Secretary.

At the Annual Meeting of the Chicago Society of Internal Medicine, the following officers were elected: President, Lee C. Gatewood, M.D.; Vice-President, George E. Wakerlin, M.D. and Secretary-Treasurer, Howard L. Alt, M.D.

The new officers of the Chicago Dermatological Society are as follows: President, Lester M. Wieder, M.D., Milwaukee, Wisconsin; Vice-President, Frederick R. Schmidt, M.D., Chicago, Illinois; Secretary-Treasurer, Marcus R. Caro, M.D., Chicago, Illinois.

At the Annual Meeting of the Chicago Urological Society, the following officers were elected: President, Theophil P. Grauer, M.D.; Vice-President, James W. Merricks, M.D.; Secretary-Treasurer, Russell D. Herrold, M.D.

The Executive Committee members are: Vincent J. O'Connor, Chairman, J. S. Eisenstaedt, Edward W. White, B. E. Fillis and N. J. Heckel.

At the Annual Meeting of the Chicago Gynecological Society, the following officers were elected: President, William J. Dieckman, M.D., Chicago; President Elect, James E. Fitzgerald, M.D., Chicago; Vice-President, Ralph A. Reis, M.D., Chicago; Treasurer, Henry Buxbaum, M.D., Chicago; Secretary, Herbert E. Schmitz, M.D., Chicago; Pathologist, Robert M. Grier, M.D., Evanston, and Editor, Philip H. Smith, M.D., Evanston.

#### DR. EDWIN S. HAMILTON OF KANKAKEE HONORED

The Kankakee County Medical Society organized, as a surprise party, a testimonial dinner for Dr. Edwin S. Hamilton. This was held June 29 at the Kankakee Country Club. It was attended by members of the Kankakee County Medical Society and their wives and a number of physicians from outside of Kankakee: Dr. E. P. Coleman, president, Dr. Harry M. Hedge, first vice-president, and Dr. Harold M. Camp, secretary, Illinois State Medical Society; Dr. Percy E. Hopkins, chairman of the Council; Dr. J. J. Moore, president of the Chicago Medical Society and treasurer of the American Medical Association; Dr. Fred H. Muller, president-elect of the Chicago Medical Society. Members of the State Council present were Dr. Oscar Hawkinson, Dr. L. J. Hughes, Dr. Charles P. Blair and Dr. Charles H. Phifer. Also present were Dr. H. L. Kampen of Monmouth, Mr. Webb Johnson of Monmouth, Dr. G. Henry Mundt, Dr. Rollo K. Packard and Dr. James H. Hutton, past presidents of the Illinois State Medical Society, Dr. Robert H. Hayes and Dr. John J. Pflock, delegates to the American Medical Association. Dr. and Mrs. Leo Clowes of Hinsdale were also present.

Talks were made by a number of the members of the County Society, also a representative of St. Mary's Hospital. Dr. Hamilton received handsome presents from the hospital staff and the Kankakee County Medical Society. We all knew that Dr. Hamilton was a good doctor and a prominent citizen, but we didn't know how good he was until we heard his neighbors describe his virtues and attainments.

## DEATHS

EDGAR HARVEY ALBERS, Chicago; Northwestern University Medical School, Chicago, 1917; Army Medical School, 1918; diplomate of the National Board of Medical Examiners; served in the medical corps of the U. S. Army during World War I; died in Clinton, Iowa, May 7, aged 52, of heart disease.

ALEXANDER W. BURKE, Chicago; University of Illinois College of Medicine, 1909. Flight surgeon at the airport. Was captain in World War I. Died following a heart attack in Memphis, Tennessee, June 4, 1944, age 55.

JACOB F. BURKHOLDER, Chicago; University of Western Ontario Medical School, 1892. Had served as professor of ophthalmology at Loyola University. Practiced medicine in Chicago nearly 50 years. Died June 8, 1944 at the age of 82.

GEORGE P. DAUGHERTY, Farina; Barnes Medical College, St. Louis, Missouri, 1911. Died of a heart attack while fishing June 5, 1944 at the age of 56.

ABRAHAM DUNGYERSKY, Chicago; Magyar Királyi Pázmány Petrus Tudományegyetem Orvosi Fakultása, Budapest, Hungary, 1919; died April 9, aged 54, of heart disease.

ANDREW H. FRANKEL, Chicago; Wisconsin College of Physicians and Surgeons, 1906. Former member of faculty of Marquette University. Served in World War I as a naval lieutenant and was personal physician to Lt. Comdr. John Philip Sousa. Died May 29, 1944 at the age of 62.

OTTO A. GAHL, Chicago; University of Illinois College of Physicians and Surgeons, 1907. Had practiced medicine in Chicago for 37 years. Died June 17, 1944 at the age of 61.

A. CHESTER GREEN, Chicago; Northwestern University Medical School, 1910. Formerly member of the staff of the Chicago Ear, Eye, Nose and Throat Hospital. Had practiced medicine in Chicago over 35 years. Died June 7, 1944, aged 57 years.

ADOLPH HARTUNG, Chicago; University of Illinois College of Medicine, 1908. Was professor of radiology at University of Illinois College of Medicine for 30 years; consultant, Women and Children's Hospital; Diplomate of the American Board of Radiology. Died May 29, 1944 at the age of 61.

WELLER H. HOFF, Paris, Ill.; Medical College of Ohio, Cincinnati, 1896; formerly mayor of Paris; at one time president of the Illinois Municipal League; served as president of the Aesculapian Society of Wabash Valley; died March 16, aged 74, of a self-inflicted bullet wound.

GREGORY HOVNANIAN, Chicago; Medico Chirurgical College, Philadelphia, 1890. Had practiced medicine in West Pulman for 50 years before his retirement. Died June 9, 1944, aged 80.

ALEXANDER ELI KAUFMAN, Chicago; Université de Lausanne Faculté de Médecine, Switzerland, 1939; Chicago Medical School, 1932; member of the Illinois State Medical Society; died March 9, aged 45, of hypertensive heart disease and chronic myocarditis.

LUTHER M. LINKER, retired, Elmira; Louisville Medical College, Louisville, 1895. Died following a long illness June 14, 1944 at the age of 77.

PERCIVAL PEARCE, Waukegan; University of Illinois College of Medicine, 1896. Was lifetime resident of Waukegan. Died in May, 1944 at the age of 76.

HUGH P. SKILES, Chicago; Hahnemann Medical College, 1880. Founded Garfield Park Hospital in 1893 and was its managing director for 30 years. Died June 2, 1944, aged 93 years.

CLINTON J. SPRINKLE, Russellville; Hospital College of Medicine, Louisville, 1900. Spent entire life except when in medical school in Lawrence County. Died April 21 after a long illness at the age of 71.

ALBERT FRENCH STORKE, Oak Park; Hahnemann Medical College and Hospital, Chicago, 1890. Was recently presented with the Illinois State Medical Society's Fifty Year Club Pin. Died May 28, 1944 at the age of 76.

ALOYSIUS J. WOCHINSKI; Chicago; Loyola University School of Medicine, 1918. Staff of Alexian Brothers Hospital and former professor of Urology at Loyola University. Formerly on staff of the Municipal Tuberculosis Sanitarium. Died May 30, 1944 of a heart attack at the age of 43.

#### SPECIALLY PREPARED GELATIN CAN BE USED FOR TRANSFUSION

Its Use Is Limited And Does Not Decrease Armed Forces' Need For Blood Donations, National Research Council Reports

Gelatin, specially prepared physically and chemically, can be used as a substitute under some circumstances for blood plasma, according to a report just released by the Subcommittee on Blood Substitutes, of the Division of Medical Sciences of the National Research Council. The report is published in *The Journal of the American Medical Association* for May 27.

The preparation and use of gelatin for transfusions does not however, in any way, decrease the need for the procurement of blood by the American Red Cross and the preparation from it of blood substitutes for the armed forces.

When whole blood, plasma or human serum albumin are available they are the preparations of choice to be employed in the treatment of hemorrhage or shock. The use of gelatin for transfusions in the field is limited to tropical or subtropical regions because solutions gel at about 20 degrees Centigrade (68 degrés F.). Gelatin solutions probably do not contribute significantly to nutrition, their only place in medical treatment being to restore a loss of circulating blood volume in acute injury of various types.

# P. R. N.

The Jocular Jingles of C. G. F.

by

Charles G. Farnum M. D.

Peoria, Ill.

## MONOTONY

Recently I talked with one who had practiced medicine for many years,  
And he told me without apparent regrets or tears,  
That there remained in the practice of the healing art not one illusion,  
And that it was his logical conclusion  
That it was foolish for him to keep on investing  
His time and energy in a work that was no longer interesting.  
He said all he saw was the same old diseases every day,  
Merely different people who had them, but always in the same old way;  
He said he had quit and would welcome any other fate,  
Since the monotony of medical practice was more than he could tolerate.  
Thereupon I set about a process of careful extraspection  
And introspection,  
To determine whether, in the general populace so large and numerous,  
Or among my patients or friends or colleagues or acquaintances so numerous,  
In my hobbies and avocations  
Or my vacations,  
I too might find  
That this existence is after all nothing but a monotonous grind.  
First I take a careful look at people as I see them day by day,  
Who, when classified in any way,  
Whether it be according to shape or race  
Or clothes or face  
Or color or speech or size,  
Cause one to realize  
That of all of nature's subtle jokes  
The cleverest one is folks,  
They are so excruciatingly funny  
That it is they, after all, who make life so sunny;  
So I stand firmly on my insistence  
That there is nothing monotonous in folks as they pertain to my existence  
Then I ruminate upon the many heaven bestowed friends with whom I have been undeservedly endowed,  
To say nothing of an assortment of enemies of which I am equally proud.

Upon all my fine colleagues in our chosen work,  
Their kindness, their loyalty, their tolerance and their unwillingness to shirk,  
Their tenacious adherence to our age-old ideals,  
Which appeals  
To those qualities in each of us which is highest and best,  
And adds a certain zest  
To the laborious task of carrying on with our daily toil —  
At calling this monotony I sharply recoil.  
I think of the things I write in and out of season  
With bad rhyme and but little reason,  
On every subject under the sun,  
The one objective being fun.  
I think of the game of golf  
That I play off and on — mostly off;  
I recall with humiliation  
And some consternation  
All the bizarre, unorthodox, undesired and unexpected things  
That happen to my golf ball when I give it wings;  
And since I play the game like most men who are aged and fat,  
There certainly is no monotony in that.  
Lastly I cogitate upon what my daily work consists,  
And wonder if anything less monotonous exists:  
Colic, mumps, tuberculosis,  
Whooping cough and silicosis,  
Jaundice, bunions, carcinoma,  
Ingrown nails and teratoma,  
Pelvic tumor, meningitis,  
Hemorrhoids, encephalitis,  
Erysipelas, rubella,  
Diabetes, varicella,  
Colds, diphtheria, fibroma,  
Tonsillitis, osteoma,  
L.O.A., appendicitis,  
Hematuria, nephritis,  
Rheumatism, hives, phymosis,  
Gout, aganulocytosis,  
Scarlet-fever, pyelitis,  
Tachycardia, iritis,  
Chiggers, multiple sclerosis,  
Dysentery, flu, cirrhosis,  
Typhoid, corns, pediculosis,  
Asthma, chicken pox, psychosis,  
To say nothing of skin eruptions, from poison ivy to fleas,  
And a lot of et-ceteras and a few et-ceterum-ques.  
I contemplate the gamut of my daily grind  
But there is surely nothing of monotony in it that I can find.  
Still there must be something monotonous in the routine of my daily life,  
Where contentment is none too abundant and disappointments are rife;  
But on diligent search the only really monotonous thing that I can figure out that has come my way  
Is the monotony of having to shave the same old face each day.



## Effective Prophylaxis, Efficient Treatment for CHIGGERS

Now's the time the troublesome chigger mite starts his regular summer offensive!

But he folds up quickly, completely—under the effective action of Sulfur Foam Applicators, Wyeth.

These applicators distribute particles of sulfur evenly, thoroughly, over the body in a most effective medium—bland soap foam.

N. B.: "The superiority of this form of sulfur over powders, ointments, pastes, etc., is without challenge."\*

During the coming chigger season, this timely prescription product will bring enthusiastic thanks from grateful patients!

A Pharmaceutical Product of  
WYETH INCORPORATED  
Philadelphia



\*Rosen, Z. J.: Sulfur and Soap as Effective Prophylaxis Against "Chiggers" (Red Bugs) in the Army, Mil. Surgeon. 90: 437-439 (April) 1942.



# Vitamins Alone

## MAY NOT BE ADEQUATE

The current popularization of the importance of vitamins, though true in most respects, may prove harmful because of the decreased emphasis placed upon other essential nutrients. A good nutritional state can be achieved only by satisfying *all* nutritional requirements, not merely vitamins, but minerals and proteins as well.

A food supplement in the literal sense of the word, Ovaltine is a balanced mixture of nutrients which provides virtually all metabolic essen-

tials. When taken three times daily with the average diet, it makes good the deficiencies usually encountered, and converts the total daily intake to nutritionally satisfying levels. Thus a state of optimum nutrition can be attained, one in which not only vitamin requirements are met, but also mineral, protein, and caloric requirements are satisfied. This delicious food drink appeals to patients of all ages, young and old, and is usually taken with relish, even over prolonged periods.

THE WANDER COMPANY, 360 N. Michigan Ave., Chicago 1, Illinois



# Ovaltine

Three daily servings (1½ oz.) of Ovaltine provide:

	Dry Ovaltine	Ovaltine with milk*		Dry Ovaltine	Ovaltine with milk*
PROTEIN . . . .	6.0 Gm.	31.2 Gm.	VITAMIN A . . . .	1500 I.U.	2953 I.U.
CARBOHYDRATE .	30.0 Gm.	62.43 Gm.	VITAMIN D . . . .	405 I.U.	480 I.U.
FAT . . . . .	2.8 Gm.	29.34 Gm.	THIAMINE . . . .	.9 mg.	1.296 mg.
CALCIUM . . . .	.25 Gm.	1.104 Gm.	RIBOFLAVIN . . . .	.25 mg.	1.278 mg.
PHOSPHORUS . .	.25 Gm.	.903 Gm.	NIACIN . . . . .	3.0 mg.	5.0 mg.
IRON . . . . .	10.5 mg.	11.94 mg.	COPPER . . . . .	.5 mg.	.5 mg.

\*Each serving made with 8 oz. of milk; based on average reported values for milk.



Summertime...heat...flies...travel...contaminated food and water  
...diarrhea...and more diarrhea.

Kaopectate\* affords simple effective control. Its fine, uniform, palatable suspension of colloidal kaolin and apple pectin adsorbs and carries off pathogenic bacteria and toxins. It coats and soothes the hypersensitive mucosa to protect it against irritation. Hydrophilic properties favor consolidation of the stool.

All in all, Kaopectate presents a logical 3-way approach to restoration of normal intestinal function...in diarrhea due to nonspecific infection, dysentery bacillus, contaminated food or water.

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**For what is it indicated?** TYROTHRIN is indicated in the treatment of superficial indolent ulcers, abscesses of the skin and soft tissues, mastoiditis, empyema, certain types of wound infections, and chronic purulent otitis media.

**How is it used?** TYROTHRIN is used for general purposes in diluted isotonic solution containing 0.5 mg. per cc. by instillation, irrigation or wet dressing. It may be instilled into body cavities which do not connect with the blood stream (paranasal sinuses, urinary bladder, pleural cavity). For topical application only.

**How is it supplied?** TYROTHRIN CONCENTRATE, *MULFORD*, is supplied in packages as follows:

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M 330-022—20 cc. vial of the solution of TYROTHRIN, 25 mg. per cc.

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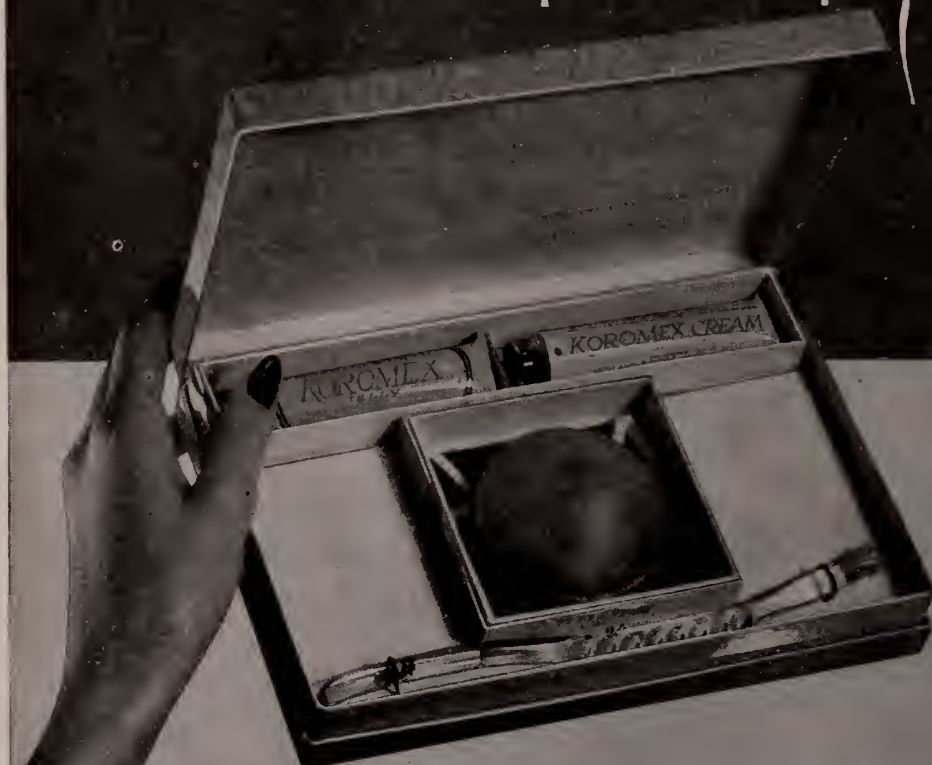


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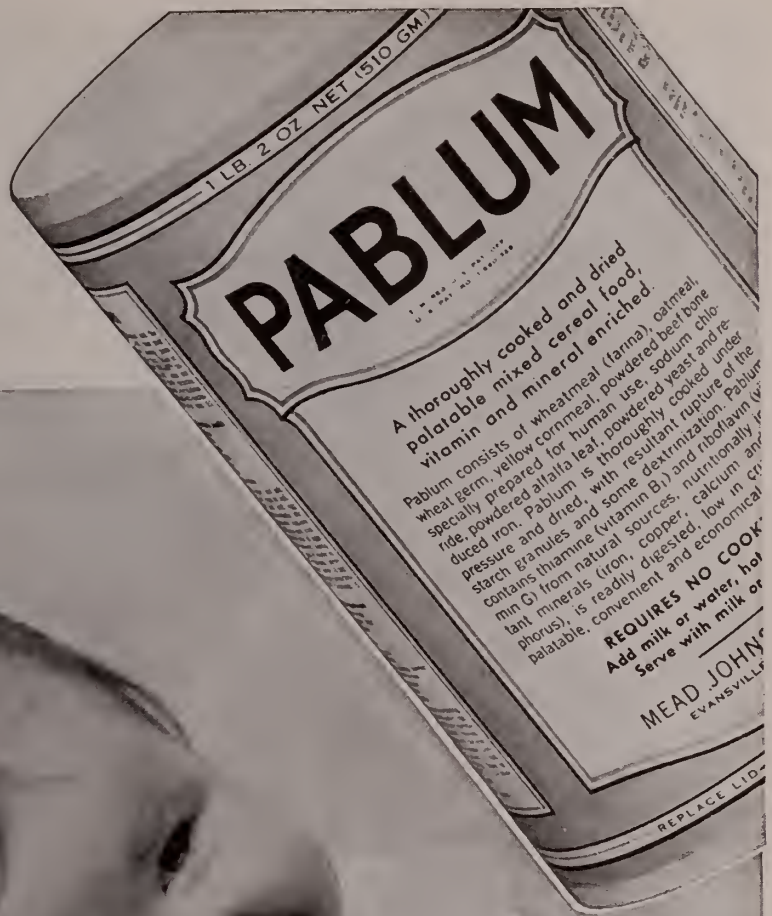
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## FINDS CONVALESCENT SERUM MAY BE USEFUL IN TREATING MEASLES

Study During Epidemic In Iceland Indicates That Its Effectiveness Is Not Limited To Protection Against The Disease

Convalescent measles serum may be useful not only as a complete protection against the disease but also as a means of treatment, Niels Dungal, M.D., Iceland, advises *The Journal of the American Medical Association* for May 6 in a report of the results from use of convalescent serum during an epidemic of measles in Iceland in 1943. The report comes from the Department of Pathology and Bacteriology, University of Iceland, Reykjavik. Convalescent serum is obtained from persons who have recovered from the disease.

Dr. Dungal says that "Convalescent serum is useful in two ways against measles: On the one hand, it may be applied to effect a complete protection against the disease, and, on the other, it may be used to alter the course of the disease in the following manner: prolongation of incubation period [the time between infection and the first appearance of symptoms], milder symptoms, lower fever, shorter illness, less complications and a corresponding quicker recovery. Some people want their children to contract measles, as it is usually more desirable to have the disease in childhood than to have to expect it some time later in life, when time is more precious. In order to effect a milder course of the disease the normal procedure should be to bring the child into contact with an infectious patient and give serum six to eight days later. If an adequate dose is given, the child will in all probability get a slight attack of measles yet sufficient to confer a lifelong immunity.

"In some cases complete protection will always be indicated, particularly for patients suffering from tuberculosis or other diseases where an addition of measles must be considered as a dangerous complication.

"A therapeutic [treatment] use of convalescent serum may come into consideration, particularly during the first days of illness, when the disease has an alarming start, especially in patients with weakened resistance."

Of 203 persons who were given convalescent

serum, Dr. Dungal says, "139, or 70 per cent, remained symptom free. Most of the others got the disease in a considerably milder degree than those not protected. The duration of the protection afforded by serum may last as long as thirty-six days at least. . . ."

## SAYS BASIC FACTS BEING IGNORED IN EVALUATION OF POLIOMYELITIS

Amount Of Ultimate Recovery Depends On Extent Of Initial Involvement Of Central Nervous System, Chicagoan Contends

The amount of ultimate recovery from acute infantile paralysis depends primarily on the degree of initial involvement of the central nervous system rather than on the type of treatment, Mary S. Sherman, M.D., of the Department of Surgery, Division of Orthopedic Surgery, University of Chicago, declares in *The Journal of the American Medical Association* for May 13. She reports a study of 70 unselected patients during the 1943 epidemic in Chicago who received only supportive treatment. Fifty-one, or 72.8 per cent, had no residual weakness or such slight weakness that it was barely detectable.

Dr. Sherman believes that consideration of some obvious basic facts about infantile paralysis seems lately to have been abandoned. She points out that back in 1913 attention was called to the high incidence of nonparalytic poliomyelitis which, after a study of 1,025 European records, was conservatively estimated at 25 to 56 per cent of all cases.

"This group, which varies with the epidemic," Dr. Sherman says, "obviously affects the recovery rate, and no appraisal of results of any treatment can be made without an accurate statement as to the number of cases which were of this type.

"It has also been known for years that epidemics vary not only as to geographic location but also as to the attack rate, the severity of general symptoms, the incidence of bulbar involvement [affecting the muscles of breathing], the incidence and severity of paralyzes and, of course, the mortality. . . . In general the death rates in recent years have been always lower than in the older epidemics. This appears to be due to the recognition of abortive cases [in which no

(Continued on page 38)

# LIFEGUARD ON DUTY

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● New reprint available on cigarette research — Archives of Otolaryngology, March, 1943, pp. 404-410. Camel Cigarettes, Medical Relations Division, One Pershing Sq., New York 17, N.Y.

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## POLIOMYELITIS (Continued)

symptoms of paralysis appear], which formerly were not usually reported even when they were recognized.

"Until recently there has never been any disagreement with the idea that the percentage of recovery, depending as it does on the factors just outlined, also varies with the epidemic rather than with the treatment. This is borne out by reports from many locations. . . ." She cites several reports of recovery rates ranging from 70 to 85 per cent, all of them in groups receiving the so-called orthodox treatment.

Discussing the 70 Chicago patients, Dr. Sherman says her paper is a report of the group six months after their acute attack. She explains that "Obviously this is too short an interval to permit a conclusive study. However, it can surely be assumed that the nonparalytic will not change, and since all the other survivors of this group seem now to be stationary or progressing satisfactorily it is unlikely that future examina-

tions will reveal much change except for improvement. . . .

"All patients . . . were kept at absolute bed rest with as nearly normal a diet as possible. . . . They were disturbed only for rapid physical examinations, and often these were done several times daily. These examinations apparently had no effect on the extent or duration of muscle weakness. . . . As 'spasm' and stiffness of the back and hamstrings appeared to be present in all cases, and since they seemed of no significance except as symptoms, no treatment was directed toward them. These manifestations disappeared spontaneously in every case within a few weeks. . . ."

Ten per cent of the 70 patients had enough residual weakness to require braces or future surgery; 8.6 per cent had functionally significant weakness which does not require further treatment and which does not constitute a handicap to normal life. There were six deaths (8.6 per cent). The average hospital stay, excluding the fatal cases, but including readmissions for supervised physical activity, was 17.9 days.

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## CALLS ON THE RADIO INDUSTRY TO CURB "PATENT MEDICINE" ADS

Journal Says Elimination By Many Leading Newspapers Of Exploitation Of Sick With Unwarranted Claims Should Be Emulated

The radio industry is called on by *The Journal of the American Medical Association* for May 13 to emulate many of the leading newspapers of the country in eliminating the exploitation of the sick through "patent medicine" advertising. "The interests which exploit the sick through 'patent medicine' advertising on the radio should not be allowed to tamper longer with the health and pocketbooks of the American people," *The Journal* declares.

In the same issue of *The Journal*, Roy R. Kracke, M.D., and William R. Platt, M.D., Emory University, Ga., report the cases of two men suffering chronic prolonged bromide intoxication, "presumably arising from prolonged self administration with B. C. headache powders." Both men, prior to admission to a hospital, had been seen stumbling aimlessly around the streets of their home town and had been thought to be drunk. Nineteen days in the hospital were required for one of the men and twelve days for the other.

Commenting on the report, *The Journal* says: "Although many leading publications of the country have made a serious effort to eliminate the worst of the 'patent medicines' from their advertising pages, numerous radio stations remain notoriously backward in this respect. Hour after hour, day after day, loud speakers of radios blare forth outrageous claims for some nostrum or 'patented' home remedy. The 'patent' remedies advertised range from those that may be positively harmful, as is that discussed elsewhere in this issue, to those that are merely grossly overpriced in relation to their value. Even these, however, tend to delay the use of dependable foods or services and initiate the expenditure of funds that might better be applied to securing scientific diagnosis and treatment. Recently newspapers as widely different as the *Chicago Tribune* and *PM* have almost simultaneously exposed some of the most notorious of the 'patent medicines.' But newspapers alone cannot solve this problem. The situation

(Continued on page 42)

# THE MISSISSIPPI RIVER PROVES THE POTENCY OF *Liquid Bulk*



**F**LOWING through the Mississippi Valley, "Old Man River" carries along over a million tons of waste every day, depositing it into the Gulf of Mexico.

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★ in the isolated loop of a dog's ileum, a

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★ Sal Hepatica's liquid bulk helps stimulate bowel muscles, maintain a proper water balance. And the salines of Sal Hepatica relieve gastric acidity, help promote the flow of bile.

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## **Prenatal or Post-partum Backache?**

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## **Hernia?**

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## **Ruptured Disc?**

Spencer Spinal Supports are designed to provide rigid support when desired—also for postoperative cases.

## **Spondylarthritis and Sciatica?**

Spencers are effective as aid to treatment. Spondylolisthesis, osteoporosis, congenital spinal weakness or deformities are other back conditions for which Spencer Supports are designed.

## **Back Injuries?**

Spencer Spinal Supports are in wide use by orthopedists for fractured vertebrae and other back injuries, kyphosis, lordosis, scoliosis, spinal tuberculosis and malignancy.

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## **"PATENT MEDICINE" (Continued)**

requires the housecleaning efforts of the radio industry itself and the more active interest of those governmental agencies, such as the Federal Trade Commission, Food and Drug Administration and Post Office Department, which are delegated with responsibility in this regard. . . ."

Drs. Kracke and Platt say in their report that "There seems to be an increase in . . . [drug] intoxication caused, according to the Federal Trade Commission, by increased consumption of various agents designed to soothe the nerves of a population at war living in a scarcity of doctors.

"It is only within recent years that certain proprietary medicines have been specifically incriminated in the production of hematologic [blood], neurologic [nerves], psychiatric [mental], dermatologic [skin] and other pathologic [disease] manifestations in the habitual user. Such agents have included Bromo-Seltzer, Neurosine, Pyramidon and Sedormid. This paper adds another popular self-medication agent, B. C. headache powder, to the list. . . ."

One patient, the two physicians say, was a white man aged 35, a carpenter who, on admission to the hospital, responded sluggishly and incoherently to questioning. His wife and sister said he "had been taking B. C. headache powders for the last fifteen years, taking from six to ten powders daily because of persistent 'migraine' headaches. They further stated that he took no other drugs. During the last three years he had been having intermittent, prolonged, lethargic, somnolent episodes. . . ."

On admission he did not know where he was or the day of the week. He could not add, subtract or divide simple figures but did know his name, though only after persistent questioning. Physical manifestations included cyanosis (blueness of the skin), especially of the lips, and many copper colored eruptions over the neck, back and calf muscles, some of them ulcerated.

The condition of the second patient was quite similar to that of the first. He was a white man aged 43, a fireman. "According to his wife and relatives, he had been accustomed to take an occasional B. C. headache powder for relief of headache. About two months before the present episode he had a painful abscessed tooth but said he could not stop work to get treatment and

therefore consumed as much as six packages of B. C. powder each day for one week. One day he was seen to have taken thirteen packages of B. C. headache powders and is known to have taken a great many since then for these recurrent 'headache' troubles. . . ."

Treatment of bromide intoxication includes abrupt cessation of bromide intake with substitution of other sedatives when restlessness cannot be otherwise controlled. Fluid intake is increased and approximately 6 to 12 Gm. of sodium chloride given daily.

In their conclusions the two physicians say that "B. C. headache powder, which is a proprietary preparation sold indiscriminately throughout the United States and which contains  $7\frac{1}{2}$  grains of potassium bromide and  $2\frac{1}{2}$  grains of acetanilid per powder, is another dangerous source of bromide intoxication."

#### PRODUCTION OF VACCINES MAY BE REVOLUTIONIZED BY NEW METHOD

Ultraviolet Rays From Newly Developed Lamp  
Completely Kill Or Inactivate Bacteria  
And Viruses In Less Than One Second

The production of vaccines may be revolutionized by a new method for completely killing or inactivating bacteria and viruses in less than one second by exposing them to ultraviolet rays from a newly developed lamp. The method is reported in *The Journal of the American Medical Association* for June 24 by Sidney O. Levinson, M.D.; Albert Milzer, Ph.D.; Howard J. Shaughnessy, Ph.D.; John L. Neal, Ph.C.; and Franz Oppenheimer, Ph.D., Chicago. The new method produces vaccines which, from preliminary tests with animals appear superior to those produced by heat or chemicals. The work was done at the Samuel Deutsch Serum Center at Michael Reese Hospital, and the Division of Laboratories, Illinois Department of Public Health.

The new method completely kills or inactivates suspensions of bacteria and viruses in a fraction of a second by exposing continuously flowing thin films with a depth of less than 1 mm. to a newly developed lamp which is a powerful source of ultraviolet. The investiga-

(Continued on page 44)

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### PRODUCTION OF VACCINES BY NEW METHOD (Continued)

tors emphasize that bacteria and viruses are rapidly inactivated by this technic with a minimum loss of antigenicity (ability to produce antibodies when introduced into the body), while the usual methods of inactivation (heat and various chemicals) unduly destroy the antigenic properties.

"A cardinal principle in successful vaccine production," the five men say, "is the proper exposure of the infectious agent to the irradiation. Inadequate irradiation will not completely sterilize or inactivate; over-irradiation will destroy the immunogenic properties of the vaccine. The technic employed in the past by other workers was such that it was impossible to avoid over-irradiation of a large part of the suspension while inactivating the whole. Furthermore, there was no possibility for constancy of results, either in time or in product. Such variation, inconsistency and unreliability kept the method from

being practical for the production of uniformly safe and potent vaccines."

The method developed by the five Chicago men provides standardized conditions of irradiation, thus overcoming the above named difficulties.

"Several lots of rabies vaccine inactivated by this irradiation technic," the five men report, "consistently induced a higher degree of immunity in mice than control phenolized vaccines. The irradiated rabies vaccines exhibited no significant loss of potency after six months' storage at 5 C. [41.0 F. Phenolized vaccines rapidly deteriorate on storage at icebox temperatures].

"Two lots of St. Louis encephalitis [sleeping sickness] vaccine inactivated by this irradiation technic conferred a high degree of immunity in mice.

"Irradiation of rabies or St. Louis encephalitis viruses beyond the optimum time necessary for complete inactivation causes progressive diminution of antigenicity."

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They report that they also have prepared killed vaccines for typhoid, pneumococcus (type 1) and Salmonella enteritidis (an organism causing food poisoning), and that in preliminary tests they appear to be equal or superior in antigenic potency to heat killed vaccines prepared from the same bacterial suspensions.

The investigators say they have completed approximately 150 inactivation experiments with bacteria. Suspensions containing approximately 1 billion organisms per cubic centimeter of the following bacteria were repeatedly sterilized by ultraviolet irradiation with the new method in 0.17 to 0.33 second exposure: Escherichia coli, Eberthella typhosa, Salmonella enteritidis, Staphylococcus aureus, Streptococcus viridians and Diplococcus pneumoniae.

"Two commercial lamps . . . tested under identical conditions using a suspension of Escherichia coli containing approximately 1 billion organisms per cubic centimeter as the test organism," they say, "killed 18 to 20 per cent of the

bacteria, while the new ultraviolet lamp killed 100 per cent. A third commercial lamp . . . which killed 98 per cent of the bacteria, generated a tremendous amount of heat, so that much of the bactericidal effect was due to heat inactivation. This was proved by blowing a stream of cooling air over the lamp, and its killing effectiveness promptly decreased."

Clearly, the programs for rehabilitating the tuberculous are in their initial stages of development. Many successful but isolated rehabilitation projects, for a decade or more, have been acting as beacons lighting up the course along which a national effort in this sphere may proceed. A comprehensive and coordinated national rehabilitation program is required. Without it, the effectiveness of mass case-finding campaigns and of subsequent sanatorium treatment is, in considerable measure, vitiated, and the disease remains a needlessly large drain upon the resources of the nation. Louis E. Siltzbach, M.D.

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## BAR ASSOCIATION CONDEMNS WAGNER-MURRAY-DINGELL BILL

House Of Delegates Declares It Is Replete  
With Confusion And Would Place American  
People In A Medical Straitjacket

The Wagner-Murray-Dingell bill has been condemned by the House of Delegates of the American Bar Association as being replete with confusion in the form in which it is drawn. This proposal, say the lawyers, would inevitably produce communistic medicine in the United States and place the American people in a medical straitjacket. *The Journal of the American Medical Association* for March 11, in an editorial summarizing the bar association's report on the proposed legislation, says:

"The report criticizes the proposed legislation because it is 'prepared in a form which has become popular in the past ten years, being replete with involvement, cross references, new terminology, percentages and other confusing matters,' so that the chapter on socialized medicine leaves the reader in utter confusion as to its meaning. The distinguished lawyers who prepared this statement point out that 'no one can estimate how much tax money is involved or how many people are covered' from the face of the bill. Since, however, the bill would propose to include every individual worker and since every family in the United States has at least one and one-half employed working members, the coverage would include practically every family in the United States.

"The statements made by Senator Wagner in introducing this measure are analyzed and at least twelve are pilloried as incorrect and misleading.

"A fourth section of the report emphasizes the high quality of medical service prevailing in the United States today and points out that the indigent who are most in need of medical care would not be covered by this measure. 'The Wagner-Murray-Dingell bill,' says this statement, 'would inevitably produce communistic medicine in the United States and would put all the people in a medical straitjacket under the supervision of the federal government for an alleged service which the vast majority either



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<b>\$50.00 weekly indemnity, accident and sickness</b>	<b>\$64.00</b>
	<b>per year</b>

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<b>\$75.00 weekly indemnity, accident and sickness</b>	<b>\$96.00</b>
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do not require or are able to provide for themselves.'

"Finally the report emphasizes that there are being developed in this country and under our system of private enterprise many plans for providing adequate medical care without paying the price of socialized medicine. At a previous session the House of Delegates of the American Bar Association stated its opposition 'to any legislation, decree or mandate that subjects the practice of medicine to federal control and regulation beyond that presently imposed under the American system of free enterprise.'

"As a reason for its entrance into consideration of the Wagner-Murray-Dingell bill the House of Delegates of the American Bar Association explains that its organization is limited to an expression of opinion and judgment with respect to those fields which relate to the administration of justice and which directly affect the safeguards and protection of the rights and liberties of the citizens of this country. When, therefore, under the pretext of the general welfare, legislation is proposed in Congress which either inadvertently or with deliberate subtlety constitutes a direct attack on the rights and liberties of the citizens of this country, it becomes the duty of the American Bar Association actively to voice its objections. The six objections listed specifically include the extent to which the measure depreciates local self government: a condemnation of the authority vested in the Surgeon General of the United States Public Health Service by S. 1161 which would give him the power arbitrarily to make rules and regulations having the force and effect of law; a condemnation of the procedure by which physicians, hospitals and individual citizens would be made to serve the purposes of a federal agency; the failure of the bill to safeguard the rights of patients, citizens, hospitals or doctors, which might be denied by the arbitrary or capricious action of one man; the failure of the bill to provide for any appeal from the action of the Surgeon General; and, finally, the severe condemnation of the vicious system whereby administration officials judge without court review the actions of their subordinates in carrying out orders which might be issued to them.

"The final paragraph of this report of the American Bar Association merits quotation and

(Continued on page 48)



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## BAR ASSOCIATION (Continued)

requotation as a fundamental appeal to the citizens of the United States to protect the Constitution. This statement says:

The Constitution of the United States is designed to protect the citizens of this republic in the exercise of the rights of free men. The provisions of that instrument can be rendered impotent when our citizens, for the sake of an apparent immediate benefit, surrender to their government such direct control over their lives that government, by imposing a constant fear upon them of having those benefits withheld or withdrawn, can compel from them obedience and subservience to its dictates."

In working days lost per case, tuberculosis heads the list of unnecessary disabilities. This national loss is not due alone to doctors, nor the public health service, nor the ignorance and the carelessness of the people themselves. The blame belongs to all three. Kendall Emerson, M.D.

—NTA CLIP SHEET

## Books Received

The following books have been received for reviewing, and are herewith acknowledged. This listing should be considered as a sufficient return for the courtesy of the sender. Books that appear to be of unusual interest will be reviewed as space permits each month. Readers desiring additional information relative to books listed, may write the Editor who will gladly furnish same promptly.

FUNDAMENTALS OF PSYCHIATRY: By Edward A. Strecker, M.D., Sc.D., F.A.C.P., Professor of Psychiatry and Chairman of Department, Undergraduate School of Medicine, University of Pennsylvania, etc., Second Edition. 15 Illustrations. J. B. Lippincott Company, Philadelphia and London. Price \$3.00.

INTRACRANIAL ARTERIAL ANEURYSMS: By Walter E. Dandy, Adjunct Professor of Surgery in The Johns Hopkins University. Comstock Publishing Company, Inc., Cornell University, Ithaca, New York. 1944. Price \$2.50.

A MANUAL OF PHYSICAL THERAPY; By Richard Kovacs, M.D., Professor of Physical Therapy, New

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York Polyclinic Medical School and Hospital, etc., Third Edition, Thoroughly Revised. Formerly Published under the Title, "Physical Therapy for Nurses." Illustrated with 118 Engravings. Lea & Febiger. Philadelphia, 1944. Price \$3.25.

**VIRUS DISEASES IN MAN, ANIMAL AND PLANT:** By Gustav Seiffert. A Survey and Reports Covering the Major Research Work Done During the Last Decade. Philosophical Library, New York. Price \$5.00.

**SMALL COMMUNITY HOSPITALS.** Henry J. Southmayd, Director, Division of Rural Hospitals, The Commonwealth Fund; Geddes Smith, Associate, The Commonwealth Fund. The Commonwealth Fund, New York, 1944. Price \$2.00.

**THE MEDICAL CLINICS OF NORTH AMERICA.** W. B. Saunders Company, Philadelphia and London, 1944. Symposium on Chronic Diseases.

**THE TREATMENT OF PEPTIC ULCER:** Based Upon Ten Years' Experience at the New York Hospital; By George J. Heuer, M. D., Professor of Cornell University Medical College and Surgeon-in-Chief of the New York Hospital. Assisted by Cranston Holman, M. D., Assistant Professor of Clinical Surgery, Cornell University Medical College, and William A. Cooper, M.D., Assistant Professor of Clinical Surgery, Cornell University Medical College. J. B. Lippincott Company, Philadelphia. Price \$3.00.

**RADIATION AND CLIMATIC THERAPY OF CHRONIC PULMONARY DISEASES;** With Special Reference to Natural and Artificial Heliotherapy, X-Ray Therapy, and Climatic Therapy of Chronic Pulmonary Diseases and All Forms of Tuberculosis. Edited by Edgar Mayer, M. D., F.A.C.P., F.A.C.C.P., Assistant Professor of Clinical Medicine, Cornell University Medical College, New York City; Attending Physician New York and Memorial Hospitals; Special Pulmonary Consultant, New York State Department of Labor; Formerly Member Faculty Trudeau School for Tuberculosis; Director (ex urbe) Northwoods and Will Rogers Tuberculosis Sanatoria, Saranac Lake, New York; Consultant on Tuberculosis to the Government of Cuba; Board member of the Finlay Institute of America. The Williams & Wilkins Company, Baltimore, 1944. Price \$5.00.

**MINOR SURGERY.** Edited by Humphry Rolleston and Alan Moncrieff. Published by Philosophical Library, New York. Price \$5.00.

**PRACTICAL MALARIA CONTROL:** A Handbook for Field Workers; By Carl E. M. Gunther, M. D., B. S., D.T.M. (Sydney) Field Medical Officer, Bulolo Gold Dredging Limited, Territory of New Guinea, at present with the Australian Medical Corps. Foreword by Prof. Harvey Sutton, O.B.E., M. D., F. R.A.C.P., B. Sc., D. P. H., F. R. San. I. The Philosophical Library, New York. Price \$2.50.

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## PHYSICIAN POPULATION OF THE U. S. INCREASED BY 2,570 LAST YEAR

There were 5,952 additions to the medical profession in 1943, according to the data presented in the forty-second annual compilation of medical licensure and allied statistics by the Council on Medical Education and Hospitals of the American Medical Association and published in *The Journal of the Association* for May 13.

The report says that the number of physicians removed by death in 1943 was 3,382. "It would appear, therefore," the report says, "that the physician population in the United States last year was increased by 2,570. In view of the accelerated curriculum with two classes graduating from most schools in 1943, one might expect that additions to the profession should be considerably higher. This in reality is the case at the present time. However, many physicians who obtained M.D. degrees in December of 1943 were not able to receive licenses until early in the year 1944, owing to administrative details. . .

"Estimated figures indicate that on Feb. 1, 1944 the number of physicians in continental United States, including those licensed in 1943, was 186,496. Excluding physicians who are in military service, engaged in full time hospital work, retired, not in practice or engaged in full time teaching, there remain about 100,000 physicians in private practice, some of whom are part time teachers. . . ."

Throughout 1943, 8,392 graduates were examined for licensure, of whom 7,478 passed and 914 failed. Of 6,427 graduates of approved medical schools in the United States only 1.5 per cent failed. Of 76 graduates of approved Canadian schools, 15.7 per cent failed; of 101 who graduated from approved schools no longer operating, 5.0 per cent failed; of 1,031 graduates of faculties of medicine located in coun-

tries other than the United States and Canada, 49.8 per cent failed. There were 38.4 per cent failures among 757 graduates of unapproved schools.

Of particular interest is that portion of the report concerning licensure for relocated physicians. The report says that "Removal of physicians from civilian practice has resulted in a shortage . . . in critical areas, especially in some industrial and rural sections of the country. To assist physicians attempting to relocate in such areas, the licensing boards of fifteen states provide for the issuance of temporary permits or certificates to practice medicine. . . ." A total of 244 such temporary permits were granted by the fifteen states during 1943.

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Although it has been claimed that children conceived in the winter months are somewhat more intelligent than those conceived during the other half of the year, *The Journal of the American Medical Association* for May 6 observes, people should not be alarmed if their birth dates happens to classify them as summer children. *The Journal* says:

"An association between season of birth, or conception, and intelligence has been repeatedly postulated. A. B. Fitt, for example, selected for contrast (with suitable reversal in the Southern Hemisphere) the birth months May to October corresponding to the conception months August to January as the winter children, and the birth months November to April, corresponding

to the conception months February to July, as the summer children. It has been shown conclusively, according to J. A. Fraser Roberts [in an article in a recent issue of the *British Medical Journal*] that children whose time of conception is centered in the winter months are on the average somewhat more intelligent than those conceived during the other half of the year. Two explanations of the difference are suggested: first, that the season of conception influences intelligence or, second, that intelligence influences conception. A simple way of distinguishing between the two possibilities is available, Roberts says. Children born of the same parents can be compared, i. e. winter children with their summer brothers or sisters. A second line of inquiry is to determine the number of sibs [those related by blood] of comparable groups of winter and summer children. Should it be intelligence which influences season of conception, winter children not only will be more intelligent but will have fewer brothers and sisters. A statistical analysis along these lines throws interesting light on the subject. When winter children were compared with their summer brothers and sisters, measured by the advanced Otis intelligence test, the differences vanished. It was also shown that while winter children differ from summer children in intelligence they differ even more in having fewer sibs. Thus, according to Roberts, the observed association between the time of conception and intelligence is to be ascribed not to seasonal influences on the mother or the developing child but to a tendency for the children of more intelligent parents to be conceived slightly more often in winter, those of less intelligent parents slightly more often in summer. Fascinating as this statistical acrobatics may be, it is not necessary for any one to suffer needless alarm if their birth dates happen to classify them as summer children!"

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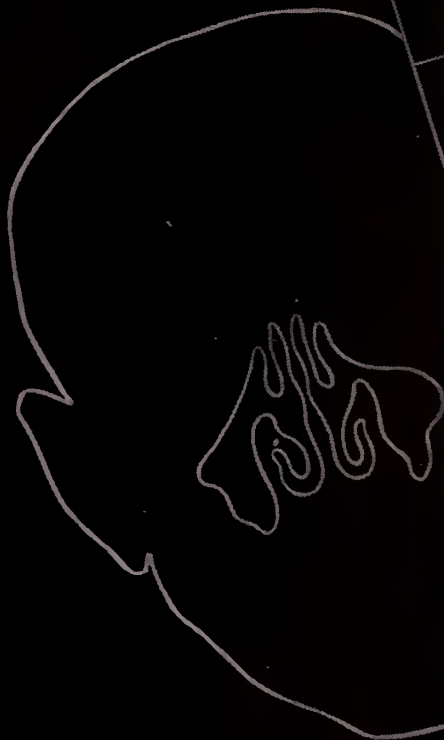
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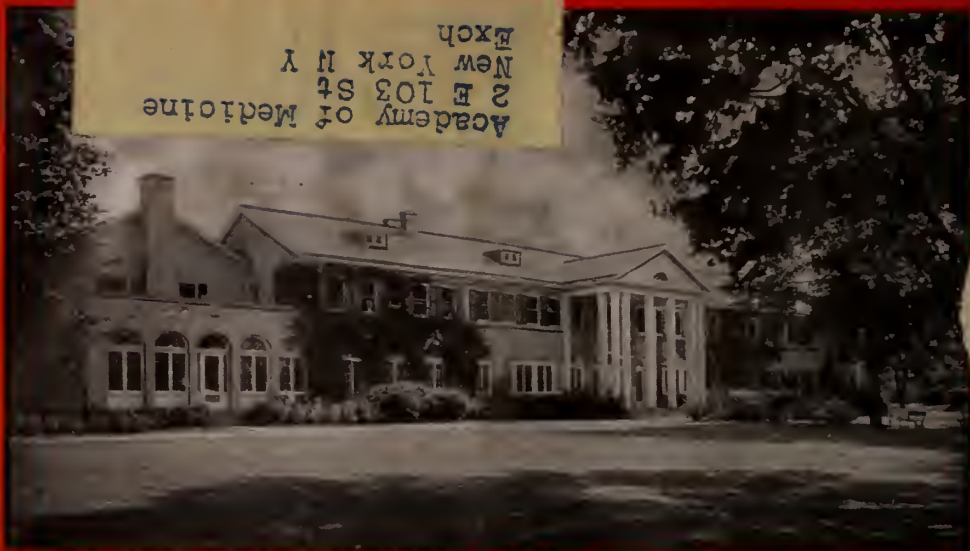
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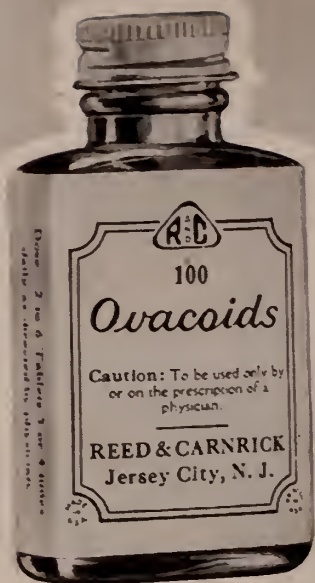


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(See page 31 for Table of Contents)

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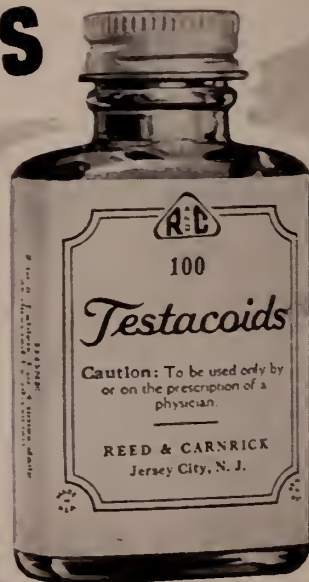
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# ANTIBODIES TO HISTAMINE INDUCED IN HUMAN BEINGS BY HISTAMINE CONJUGATES

MILTON B. COHEN, M.D., and HAROLD J. FRIEDMAN, M.D.  
(CLEVELAND, OHIO)

DALE and Laidlaw,<sup>1</sup> in 1910, demonstrated by histamine was similar to that of Lewis and his co-workers<sup>2,3</sup> demonstrated indistinguishable from an allergic wheal of histamine. These observations have since determined what substance does been demonstrated its relative importance.

The exact substance responsible for the symptoms of the allergic reaction has been regarded as a mystery.

In 1910, Dale and Laidlaw<sup>1</sup> demonstrated that histamine was similar to that of Lewis and his co-workers<sup>2,3</sup> demonstrated indistinguishable from an allergic wheal of histamine. These observations have since determined what substance does been demonstrated its relative importance.

In 1910, Dale and Laidlaw<sup>1</sup> demonstrated that histamine was similar to that of Lewis and his co-workers<sup>2,3</sup> demonstrated indistinguishable from an allergic wheal of histamine. These observations have since determined what substance does been demonstrated its relative importance.

## HISTAMINE SPECIFIC ANTIBODIES

An ingenious new technique for the study of the role of histamine in anaphylactic shock and related clinical conditions is recently reported by Fell and his co-workers<sup>4</sup> of the Research and Biological Research Laboratories, Parke, Davis & Co. The original Dale<sup>2</sup> theory of anaphylaxis assumed that a combination of antigen and antibody leads to the explosive liberation of pre-formed histamine from the sensitized tissues, the dominant symptoms of anaphylaxis being due to the liberated cellular histamine. Clinical evidence has since been obtained in support of this theory.

Histamine-Protein Complexes: Synthesis and Immunologic Investigation. I. Histamine-Azoprotein. Fell, N., Rodney, G., and Marshall, D. E.: J. Immunol. 42: 1943.

protein by diazotization to form an azoprotein which functioned as a hapten. The process of serum-globulin. Experiments were conducted to determine whether an antigen-antibody reaction would be bound by the shock organs and produce anaphylaxis.

On rabbits, with histamine-azoprotein, it was demonstrated that antisera of high specificity of the antiserum precipitated a portion of the antigen, since histamine-azo-rabbit-serum and histamine-azo-rabbit-serum precipitated desprecipitated-horse-serum with histamine-azoprotein.

These reactions were observed in the shock organs and in the blood.

in and shock-shultz.

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to the treatment of allergies. Injected subcutaneously, HAPAMINE\* stimulates the formation of antibodies capable of neutralizing histamine released by body tissues as a result of exposure to allergens.

Climaxing years of laboratory and clinical research, this new antigenic complex of histamine linked with an inert protein will be welcomed by allergists who have followed the work of Dale and Laidlaw, Fell and his co-workers, Cohen and Friedman, and others in this field. HAPAMINE is particularly useful in cases in which:

### Indicated in

Bronchial Asthma  
(of allergic nature)  
Vasomotor Rhinitis  
(allergic rhinitis)  
Physical Allergy (heat, light, cold)  
Contact Dermatitis  
Histamine Headache  
Atopic Eczema  
Urticaria

- ① the offending allergen cannot be discovered.
- ② complete avoidance of the allergen cannot be obtained.
- ③ Specific treatment with the allergen is ineffective.
- ④ the allergen is such that no specific treatment is available.

\*Trade-Mark Reg.U.S.Pat.Off.

Write for detailed medical literature

*Parke, Davis & Company, Detroit 32, Michigan*

*The macrocytic anemias  
in pregnancy  
respond to*

*Solution*  
**LIVER EXTRACT**  
*Lederle*

**M**ACROCYTIC ANEMIAS in pregnancy resemble other macrocytic anemias. This type of anemia frequently responds best to a complete anti-pernicious anemia regime, including the injection of liver extract, vitamin therapy, a diet adequate in protein, and iron by mouth when there is evidence of hypochromia.

REFINED SOLUTION LIVER EXTRACT *Lederle* is a potent preparation of the antianemia substance which, because of exceptional care and expense in preparation, causes a minimum of discomfort at the time of injection. Use of this liver extract may be expected to result in a prompt reticulocytosis, a progressive reversal of the abnormal erythrocyte picture, and simultaneous correction of symptoms.

**PACKAGES:**

**REFINED SOLUTION LIVER EXTRACT**

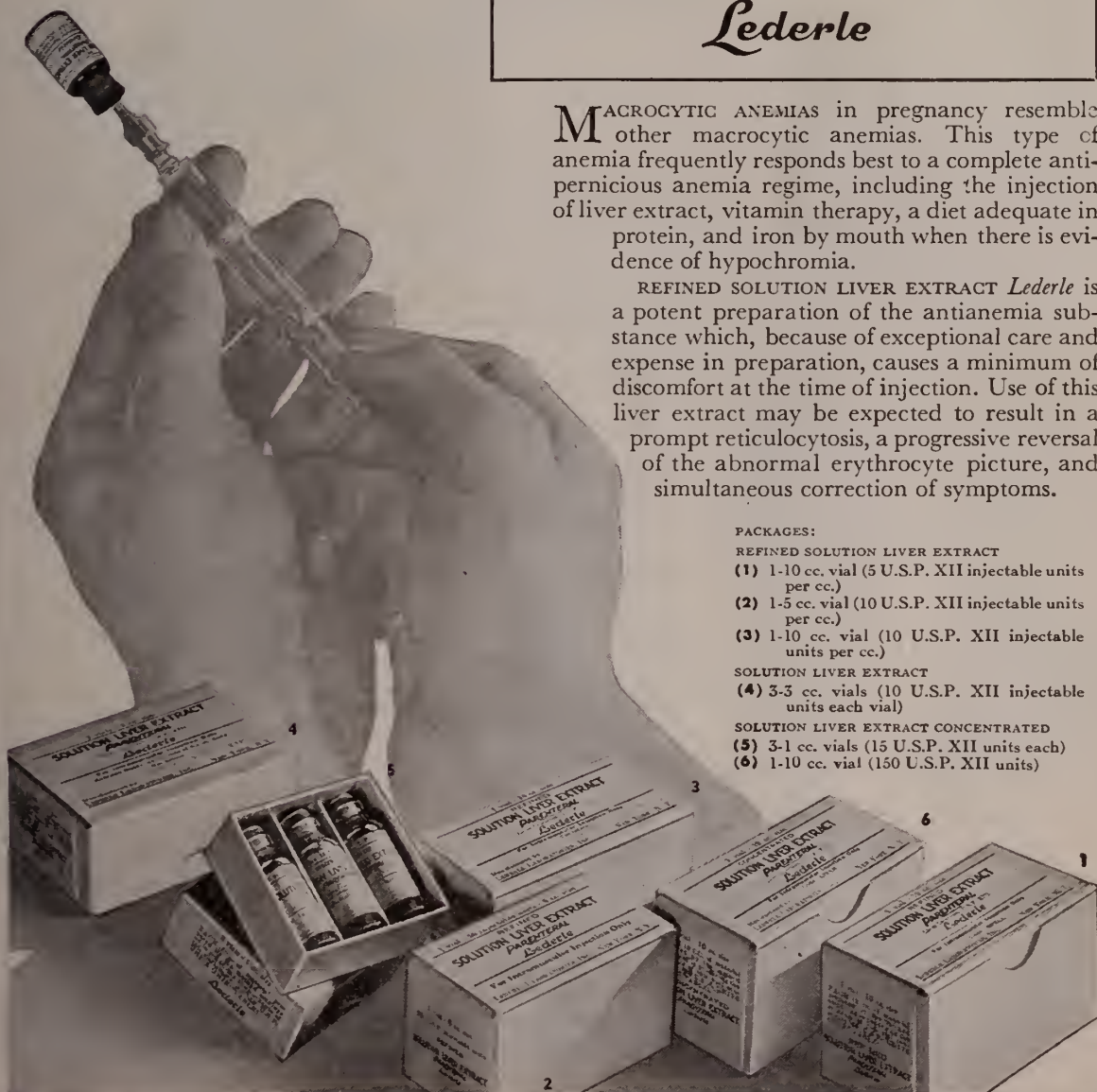
- (1) 1-10 cc. vial (5 U.S.P. XII injectable units per cc.)
- (2) 1-5 cc. vial (10 U.S.P. XII injectable units per cc.)
- (3) 1-10 cc. vial (10 U.S.P. XII injectable units per cc.)

**SOLUTION LIVER EXTRACT**

- (4) 3-3 cc. vials (10 U.S.P. XII injectable units each vial)

**SOLUTION LIVER EXTRACT CONCENTRATED**

- (5) 3-1 cc. vials (15 U.S.P. XII units each)
- (6) 1-10 cc. vial (150 U.S.P. XII units)



**LEDERLE LABORATORIES**

A UNIT OF  
AMERICAN  
CYANAMID  
COMPANY

**INC.**

30 ROCKEFELLER PLAZA, NEW YORK 20

NEW YORK

# MULTIPLE SHADOWS

Because deficiency states have frequently failed to respond completely to treatment with a single vitamin, clinicians have adopted a policy of mixed vitamin therapy.

White's Neo Multi-Vi Capsules provide a potent, rationally balanced 8 vitamin formula—including all vitamins known to be essential, in amounts substantially greater than adult daily requirements, yet not wastefully in excess of the average patient's needs.

## NEO MULTI-VI CAPSULES

### FORMULA:

VITAMIN A .....	5000 U.S.P. Units
VITAMIN D .....	500 U.S.P. Units
THIAMINE HYDROCHLORIDE, U.S.P. ....	1.5 mg.
RIBOFLAVIN .....	2.5 mg.
PYRIDOXINE HYDROCHLORIDE .....	1 mg.
CALCIUM PANTOTHENATE .....	1 mg.
NICOTINAMIDE .....	20 mg.
ASCORBIC ACID, U.S.P. ....	50 mg.

*Ethically promoted  
—not advertised to the laity.*

**WHITE LABORATORIES, INC.**

*Pharmaceutical Manufacturers,  
Newark 7, N. J.*



AVAILABLE IN BOTTLES

OF 25 • 100 • 500 • 1000 AND 5000 CAPSULES

# Restores Vaginal pH . . . . . Destroys the Pathogenic Flora



In vaginal leukorrhea, Floraquin provides destruction of the pathogenic organisms and promotes rehabilitation of the vaginal mucous membrane. Containing the nontoxic protozoacide, Diodoquin, together with lactose and dextrose, this product of Searle Research removes the causative factors of leukorrhea and restores normal vaginal physiology.

Floraquin brings about the establishment and maintenance of an acidity (pH 4.0) unfavorable to vaginal infections. Its lactose and dextrose provide the necessary substrate for the production of lactic acid, a condition which enhances destruction of pathogenic organisms and promotes normal flora—Doderlein's Bacillus.

*For Office Insufflation*—Floraquin Powder in bottles of 1 oz. and 8 oz.

*For Home Routine*—Floraquin Tablets in boxes of 24

**G. D. SEARLE & CO.**

ETHICAL PHARMACEUTICALS SINCE 1888

CHICAGO

New York Kansas City San Francisco

**SEARLE**  
RESEARCH IN THE SERVICE OF MEDICINE

*Floraquin*

is the registered trademark of G. D. Searle & Co.

*During menacing periods*  
...SUPPORT LUTEAL SECRETION



An imbalance or deficiency of the corpus luteum hormone may portend severe physical and mental distress to a woman at various periods of her life. A deficiency occurring about the time of menses may account for disorders such as premenstrual tension, dysmenorrhea, or functional uterine bleeding. When luteal deficiency occurs during the early months of pregnancy, abortion may be caused. Judicious use of Progestoral 'Roche-Organon', the orally effective form of the luteal hormone, to support the deficient secretion of the corpus luteum, usually assures a woman of menses free from distress and a prospective mother of the satisfaction of motherhood. Progestoral (Pregneninolone) is available in 5-mg and 10-mg tablets. Write for dosage schedules and descriptive literature.

Roche-Organon, Inc., Roche Park, Nutley 10, N. J.





**EFFECTIVE,  
ECONOMICAL  
PROTECTION**  
*for RG's\* and SG's\*\**

Protection against rickets is needed by all children. The faster the growth rate, the greater the requirement for vitamin D.



*Navitol with Viosterol*† is a highly potent and widely used vitamin A and D preparation. Because of its high potency, the dose is small—*three drops* for the average infant. It is easy and convenient to administer . . . unusually palatable and nearly free from fish liver oil odor. The daily dose costs about one-half cent.

Every infant needs vitamin D as a safeguard against rickets. Three drops of *Navitol with Viosterol* supply 1000 U.S.P. units of the antirachitic factor, and 5000 U.S.P. units of vitamin A. *Navitol with Viosterol* conforms to the maximum vitamin A and D potencies of Concentrated Oleovitamin A and D, U.S.P. XII.

***Specify* NAVITOL WITH VIOSTEROL**

\* Rapid Growers.      \*\* Slow Growers.

† "Navitol" (Reg. U. S. Pat. Off.) is a trade-mark of E. R. Squibb & Sons.

**E·R·SQUIBB & SONS, NEW YORK**  
MANUFACTURING CHEMISTS TO THE MEDICAL PROFESSION SINCE 1858



Among the many advantages of Tarbonis two prove of special interest in pediatric practice: Tarbonis is virtually non-irritant; it is safely applied to the skin of infants, even under conditions which made the older tar preparations lead to superimposed irritation and at times to furunculosis—heat and humidity.

The vehicle of Tarbonis is a vanishing-type cream which exhibits the total active ingredient of the applied

Tarbonis is available on prescription through all pharmacies, and for hospital and dispensing purposes through accredited supply houses. Supplied in 2¼, 8, and 16 oz. jars and 6 lb. containers. Physicians are invited to send for clinical test sample and complimentary copy of the new, comprehensive brochure on tar therapy.

# *Eczematoid Lesions*

## OF INFANCY AND EARLY CHILDHOOD

quantity to the area under treatment. In consequence Tarbonis proves therapeutically equivalent, if not actually superior, to other tar preparations of much higher concentration.

Tarbonis owes its high efficacy—demonstrated over a decade of use at one of America's outstanding pediatric clinics—to its special liquor carbonis detergens, of which it combines 5% with lanolin and menthol in a vanishing-type cream. The process,

by which this liquor is extracted from carefully selected tar, is distinctly different—assures greater uniformity—minimizes irritant properties.

Tarbonis is free from all tarry odor, is pleasantly scented. It is NON-STAINING, NON-SOILING, GREASELESS. Its application leaves no trace upon the skin. It requires no removal before re-application.

THE TARBONIS COMPANY  
1220 Huron Road, Cleveland 15, Ohio

# TARBONIS

Reg. U. S. Pat. Off.

# Why PENICILLIN-C.S.C.

Penicillin-C.S.C.—available as penicillin calcium as well as penicillin sodium—is packaged only in rubber-stoppered serum-type vials containing 100,000 Oxford Units. The vials are used in preference to sealed ampuls because they make for greater convenience in storing the solution and because they lessen the danger of contamination after the solution is made.

Only vials of 100,000 units are offered at present because experience designates them as the most advantageous size. If there IS a factor in therapy which may undermine or lessen the remarkable therapeutic efficacy of penicillin, it may be underdosage. Even if ther-

apy is instituted late in the course of the disease, penicillin in many instances will prove effective if adequately high dosage is used for the proper length of time.

In the conditions so far explored and reported, effective dosage in some instances will be less than 100,000 units per day; in many instances it may have to be several times this amount. Hence in a large percentage of cases the Penicillin-C.S.C. vial of 100,000 units will prove most advantageous.

The convenience of the vial will be readily appreciated. After removal of the tear-off portion of the aluminum seal, sterilize the exposed surface of the rubber stopper



For the usual concentration (5000 Oxford Units per cc.) inject 20 cc. of physiologic salt solution into the vial in the usual aseptic procedure.



Invert the vial and syringe (with needle in vial), and withdraw the amount of penicillin solution required for the first injection.



Store vial with remainder of solution in refrigerator. Solution is ready for subsequent injections during the next 24 hours.

# IS SUPPLIED ONLY IN 100,000 OXFORD UNIT VIALS

in the customary manner, inject into the vial 20 cc. of pyrogen-free, sterile physiologic salt solution; without removing the needle invert vial and withdraw as many cc. of this 5000 units per cc. solution for the injection that is to be made immediately; store the vial with its remaining solution in the refrigerator—it is ready for use when the next injection is to be made.

The concentration withdrawn from the vial is 5000 units per cc. If

a lower concentration is desired, modification is easily accomplished.

If you have not as yet received a copy of the "Penicillin-C.S.C. Therapeutic Reference Table," showing dosages, modes of administration, and duration of treatment required in the various infections in which penicillin is indicated, write for a complimentary copy now. You will find it a valuable aid in familiarizing yourself with penicillin therapy.

## PHARMACEUTICAL DIVISION

## COMMERCIAL SOLVENTS

*Corporation*

Penicillin Plant  
Terre Haute, Ind.



17 East 42nd Street  
New York 17, N. Y.

### *Therapeutic Reference Table . . . Penicillin-C. S. C.*

CONDITIONS IN WHICH PENICILLIN IS THE BEST  
THERAPEUTIC AGENT AVAILABLE

CONDITION	MODE OF ADMINISTRATION <sup>1</sup>	DOSEAGE <sup>2</sup>	DURATION AND COLLATERAL THERAPY	CONDITION
<b>1. All streptococcal infections with and without bacteremia:</b>				
• Acute Osteomyelitis	Intramuscular as indicated and Local	10,000 to 15,000 O.U. every 8 hours 250 to 500 O.U. per cc. NACI solution	7 days or less; debridement and surgery as required	• Col
Chronic Osteomyelitis	Intramuscular or Intravenous and Local	20,000 O.U. every 4 hours 250 to 500 O.U. per cc. NACI solution	According to response; debridement and surgery as required	• Ma
Arthritis, Salt Tissue Deposits	Intramuscular or Intravenous	10,000 to 15,000 O.U. every 8 hours		• Ma • Col

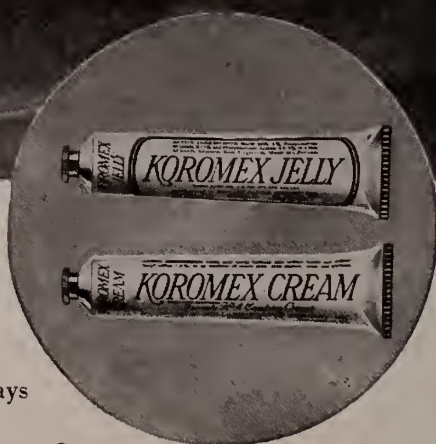
A page of the "Penicillin-C.S.C. Therapeutic Reference Table", showing recommended dosages and modes of administration; a copy is yours for the asking.





## *with Confidence*

Through all the years, the name Koromex has always stood for dependability. Koromex Jelly today has attained its highest spermicidal effectiveness. Koromex Cream (also known as H-R Emulsion Cream) is equally effective, and is offered as an aesthetic alternative to meet the physiological variants. Prescribe Koromex with confidence. Write for literature.



HOLLAND-RANTOS COMPANY, INC. • New York, Chicago, Los Angeles





## Rhythm-restoring Bulk—with Extra Benefits

The “normal” rhythm of natural bowel movement is safely and smoothly restored by this easy-to-take psyllium bulk laxative

and besides, it is economical—rarely allergenic—non-caloric—non-digestible—and non-absorptive of fat-soluble vitamins.

# Mucilose



*This highly purified hemicellulose is available in 4-oz. bottle and 16-oz. containers as Mucilose Flakes and Mucilose Granules.*

*Trade Mark Mucilose Reg. U. S. Pat. Off.*

*Frederick* **Stearns** & *Company*

DETROIT 31, MICHIGAN

NEW YORK

KANSAS CITY

SAN FRANCISCO

WINDSOR, ONTARIO

SYDNEY, AUSTRALIA

AUCKLAND, NEW ZEALAND



IF A PATIENT  
WANTS INFORMATION  
REGARDING THE

# ADVANTAGES

## *of internal menstrual protection*

Primarily, the unique functional design of the Tampax vaginal tampon accounts for its numerous advantages— anatomic, physiologic and psychologic.

As one gynecologist<sup>1</sup> stated, at the conclusion of a study involving more than 2,300 cases of all types (many of whom employed Tampax over extended periods): "The patient does not even know that a tampon is present in the vagina if it is inserted sufficiently deep." He continued, "Many say they can forget that they are menstruating and so are without the disturbing annoyance they had every time they menstruated."

A general practitioner<sup>2</sup>, after studying 21 patients, remarked: "All patients were favorably impressed after using the tampons. Some said that they eliminated the chafing and itching caused by the usual external pads. Some said that

they eliminated a 'wet feeling' or 'unpleasant odor'. Others preferred them because they could indulge in sports with greater freedom."

And another specialist<sup>3</sup>, after observing 110 women (both single and married) who employed vaginal tampons throughout each period for from 1 to 2 years, reported that "because of the greater comfort experienced, 103 subjects preferred to continue to use the tampons through part or all of the menstrual period rather than to return to the use of the perineal pad alone."

Such opinions reflect the reactions of thousands of women in all walks of life who have experienced the advantages inherent in the Tampax method of menstrual hygiene.

(1) West. J. Surg., Obst. & Gyn., 51:150, 1943.

(2) Clin. Med. & Surg., 46:327, 1939.

(3) Am. J. Obst. & Gyn., 46:259, 1943.

# TAMPAX

ACCEPTED FOR ADVERTISING BY THE JOURNAL  
OF THE AMERICAN MEDICAL ASSOCIATION

TAMPAX INCORPORATED  
PALMER, MASSACHUSETTS

Please send me a professional supply  
of the three absorbencies of Tampax.

Name \_\_\_\_\_

Address \_\_\_\_\_

City \_\_\_\_\_



## *when apathy prolongs convalescence*

Many convalescent patients, faced with the "drab succession of dreary days", may develop a reactive depression which can markedly retard normal recovery.

This depression may manifest itself in symptoms of apathy, hopelessness or despondency, psychomotor retardation and subjective weakness.

Obviously, the physician should guard against undue stimulation. But when, in his judgment, a convalescent patient will

benefit by a sense of increased energy, mental alertness and capacity for work, the administration of Benzedrine Sulfate Tablets will often accomplish the desired result.

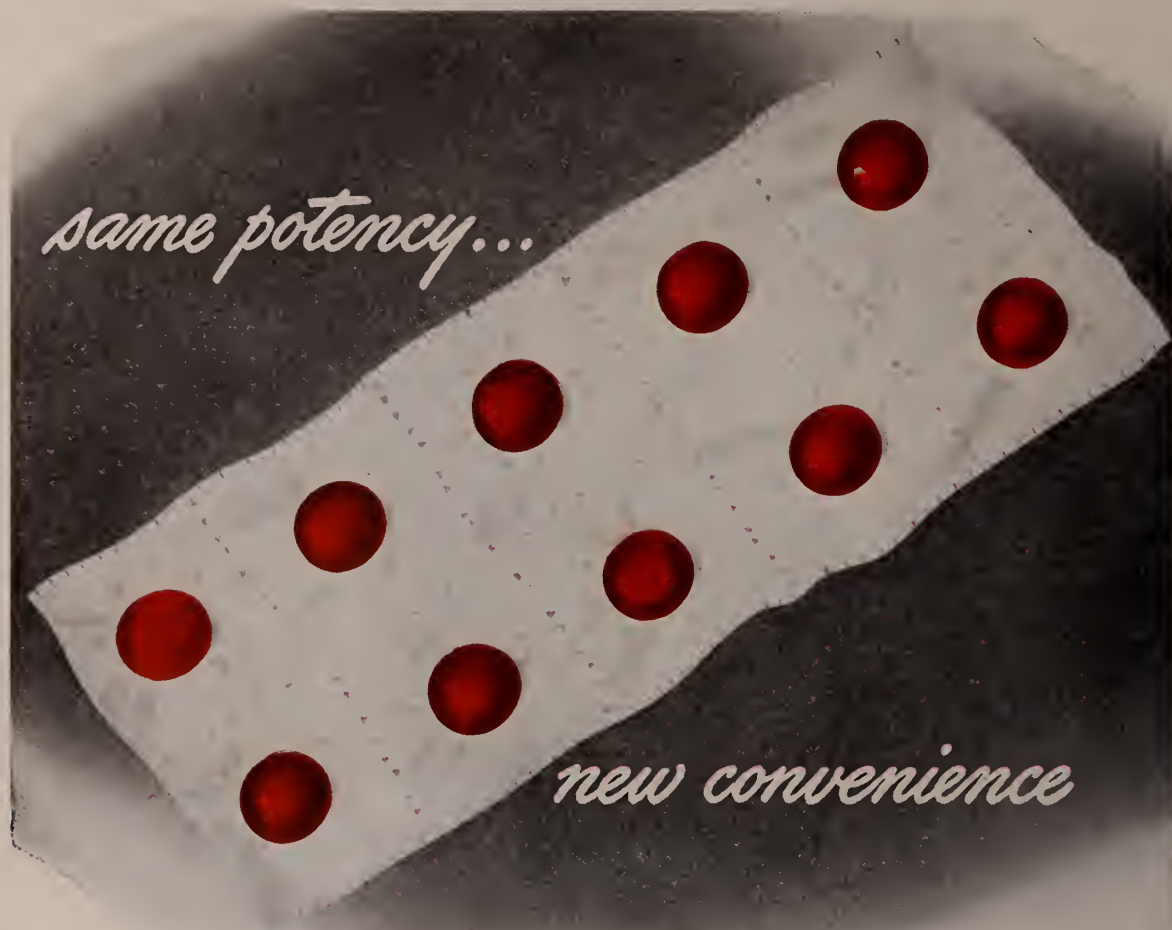
## **BENZEDRINE SULFATE TABLETS**

(racemic amphetamine sulfate)



As with any potent therapeutic agent, Benzedrine Sulfate should be administered under the supervision of the physician. Indications and contraindications are set forth in N.N.R.

**SMITH, KLINE & FRENCH LABORATORIES • PHILADELPHIA, PA.**



## **OL-VITUM** **now in tablet form**

You know, Doctor, what a potent ally you have in I. V. C. Ol-Vitum—the "8-Vitamin" Capsules. *Now* you can have the same potency, the same all-around completeness of Ol-Vitum in *tablet* form, too.

Each individual Ol-Vitum Tablet is scientifically sealed in sanitary cellophane squares

—10 tablets to a strip. A convenient, clean way for patients to carry a supply of balanced vitamins in purse or pocket.

Ol-Vitum Tablets are a product of "The House of Vitamins"—The International Vitamin Corporation, largest exclusive manufacturer of vitamins and vitamin products.



# **OL-VITUM**

**THE "8-VITAMIN" TABLET OR CAPSULE**



**S**uccessful management of high blood pressure calls for a regimen which is adjusted to individual requirements. Physical activity is generally curtailed and overwork is avoided. In certain circumstances special diets are prescribed and the use of stimulants is restricted.

These measures are often supplemented with the administration of Theominal. This combined vasodilator and sedative aids in reducing blood pressure to a more normal level. As a consequence hypertensive symptoms are relieved and the risk of complications is reduced.

**DOSAGE:** The customary dose of Theominal is 1 tablet two or three times daily; when improvement sets in the dose may be reduced. Each tablet contains theobromine 5 grains and Luminal\*  $\frac{1}{2}$  grain.

\*Luminal (trademark), Winthrop Chemical Company, Inc., brand of phenobarbital.



# Theominal

Reg. U. S. Pat. Off. & Canada

Supplied in bottles of 25, 100 and 500 tablets.

*Winthrop*  
**CHEMICAL  
COMPANY  
INC.**

Pharmaceuticals of merit  
for the physician

**NEW YORK, N. Y.  
WINDSOR, ONT.**



## When politeness doesn't pay

Too often patients feel obliged to suppress the normal urge for evacuation while visitors or even physicians are present. When privacy is finally gained, the stimulus may be gone. Another movement has been skipped!

Since absorption of fluid continues in the large bowel, the stool progressively hardens so that when evacuation is attempted, it may require painful straining and irritate tender tissues.

'Agarol'\* Emulsion holds moisture in the stool, provides soft bulk and lubrication, and mildly stimulates peristalsis. 'Agarol' Emulsion does this with finesse—providing the minimal stimulus needed for evacuation. And with 'Agarol' Emulsion there need be no griping, no leakage. . . .

William R. Warner & Co., Inc., 113 W. 18th St., New York 11, N. Y.

\*Trademark Reg. U. S. Pat. Off.

# Agarol

Phenolphthalein in an Emulsion of Mineral Oil, an Agar-Gel, Tragacanth, Acacia and Egg-Albumen



Enjoys her baby,  
*right from the start*



*'Dexin' does make a difference*

#### COMPOSITION

Dextrins . . 75%	Mineral Ash . 0.25%
Maltose . . 24%	Moisture . . 0.75%

Available carbohydrate 99%  
115 calories per ounce

*Literature on request*



BURROUGHS WELLCOME & CO. (U.S.A.) INC. 9-11 E. 41st Street, New York 17, N. Y.

From the moment a baby is given his first 'Dexin' feeding, mealtimes are happy times for both baby and mother.

'Dexin' helps to assure uncomplicated infant feeding because its high dextrin content (1) diminishes intestinal fermentation with resultant reduction in distention, colic and diarrhea and (2) promotes the formation of soft, flocculent, easily digested curds.

Formulas modified with 'Dexin' are palatable, and not excessively sweet. 'Dexin' is readily soluble in hot or cold milk. Supplied in containers of 12 ounces and 3 pounds.

'Dexin' reg. U. S. Patent Office

**'DEXIN'**  
HIGH DEXTRIN CARBOHYDRATE



# TO PLACE MORE PENICILLIN IN THE HANDS OF THOSE WHO NEED IT



## PENICILLIN *Schenley*

WHEN the great need for Penicillin developed, it was natural that, with experience in the field of mycology and fermentation research, Schenley should turn its extensive facilities to this humanitarian cause.

The full-time services of our research staff were immediately applied to the task of perfecting a large-scale *Penicillin*-producing method. Progress was sufficiently successful to earn a place for Schenley among the 21 firms designated for production of the precious drug.

Today, *Penicillin* Schenley is augmenting the nation's supply of this valuable antibacterial agent. Our goal in these efforts is to aid in furnishing sufficient *Penicillin* to fill the fullest needs of both military and civilian medicine.

A RADIO PROGRAM DEDICATED TO AMERICA'S PHYSICIANS

### "THE DOCTOR FIGHTS"

*starring* RAYMOND MASSEY

. . . a report to the nation on the widespread activities of America's doctors at war. We believe you will find this program of interest. Your suggestions or comments are welcomed.

*Tuesday Evenings • Columbia Broadcasting System*

8:30 C.W.T.

SCHENLEY LABORATORIES, INC.

Lawrenceburg, Ind.

# Heroes of the United States Medical Services



SURGEON LEWIS HEERMANN  
(1779-1833) U. S. Navy



"MY LIFE, SIR, is not more valuable than that of any of the other brave officers...the presence of a professional man to assist the wounded might save many valuable lives which may be sacrificed from loss of blood or the want of a surgeon."

Such was the reply of Surgeon Lewis Heermann to Decatur when advised to seek safety during the battle of Tripoli Harbor in 1804. Those words became immortal, for they echo the sentiments of all physicians of the U. S. Navy. Physicians serve today, as they did 140 years ago, in the thick of battle, placing the welfare of their men above any thought of personal safety.

Ciba Pharmaceutical Products, Inc. salutes the men in the Medical Services of the United States as well as those in civilian forces responsible for health "behind the lines."

## Battleship Surgeon



© 1944, C. P. P., Inc.

**Ciba** PHARMACEUTICAL PRODUCTS, INC.  
SUMMIT, NEW JERSEY  
CANADIAN BRANCH: MONTREAL, QUEBEC  
TOMORROW'S MEDICINES FROM TODAY'S RESEARCH

# A CONSTANT STANDARD



**F**OR over a decade the potency of Digifolin\* has been constant and unvarying . . . its standards and assay methods have not changed. The physician is assured of predictable results in dosages he has always used.

## DIGIFOLIN

Ampuls • Tablets • Solution



\*Trade Mark Reg. U. S. Pat. Off.  
"Digifolin" identifies the product of digitalis glycosides of Cibo's manufacture.



# Ciba

*Tomorrow's Medicines from Today's Research*

**Pharmaceutical Products, Inc.**

**SUMMIT, NEW JERSEY**

**CANADIAN BRANCH: MONTREAL, QUEBEC**

# Faster Response

## IN SECONDARY ANEMIA



In the correction of the anemic state Livitamin not only leads to rapid hemoglobin regeneration, but also aids in the eradication of the usually associated conditions. Its iron is highly available and promptly utilized; its contained liver concentrate presents the fractions found valuable in the anemias; its rich store of B-

vitamins overcomes the frequently severe anorexia and corrects the nutritional deficiencies which almost invariably are encountered in hypochromic anemia. Since Livitamin is in liquid form, dosage is easily adjusted to the patient's need. Its palatable taste is appreciated by all patients, and especially by children.

# LIVITAMIN



Each fluidounce of Livitamin presents:

Fresh Liver (as concentrate).....	1.5 oz.
Thiamine Hydrochloride (B <sub>1</sub> ) (3 mg.).....	1000 U.S.P. Units
Riboflavin (B <sub>2</sub> or G).....	1.00 mg.
Nicotinic Acid (Niacin).....	25.0 mg.
Pyridoxine Hydrochloride (B <sub>6</sub> ).....	0.187 mg.
Pantothenic Acid.....	2.315 mg.
Filtrate Factor.....	20 J. L. Units
Iron and Manganese Peptonized.....	30 gr.

In doses of 2 to 4 teaspoonfuls t. i. d. Livitamin rapidly corrects hemoglobin deficiency. Available in 8-oz. bottles.

**THE S. E. MASSENGILL COMPANY**

Bristol, Tenn.-Va.

NEW YORK • SAN FRANCISCO • KANSAS CITY





# War

*...in white*



Always exposed to enemy fire, bombing, the field clearing-station surgeons work under the worst hazards ever faced by "soldiers in white." Naturally, their brief respites . . . the occasional "breaks" for smokes . . . are delightful moments.

More delightful because their cigarette is likely to be a Camel... the milder, more flavorful brand favored in the armed forces.\*

Today... as in the first world war... Camel is the "soldier's cigarette," every puff a cheering highlight in a fighting man's life.

## 1st in the Service

\*With men in the Army, the Navy, the Marine Corps, and Coast Guard, the favorite cigarette is Camel. (Based on actual sales records.)



# Camel

**COSTLIER TOBACCOS**

New reprint available on cigarette research—Archives of Otolaryngology, March, 1943, pp. 404-410. Camel Cigarettes, Medical Relations Division, One Pershing Square, New York 17, N. Y.

# Control Summer Diarrhea

WITHOUT CONSTIPATING EFFECT...

*with...*



## DOSAGE:

**At Onset:** Teaspoonful every hour until normal evacuation with proper stool consistency is restored.

**Follow with:** Teaspoonful before meals and at bedtime, reduce as indicated.

Zymenol provides a twofold natural approach to the two basic problems of Common Diarrhea;

**NORMAL INTESTINAL CONTENT REESTABLISHED**  
... through BREWERS YEAST ENZYMATIC ACTION\*

**NORMAL INTESTINAL MOTILITY RESTORED**  
... with COMPLETE NATURAL-VITAMIN B COMPLEX\*

This twofold natural therapy assures normal bowel function without constipating astringents and absorptives, artificial bulkage or catharsis.

*Write For FREE Clinical Size*

\*Zymenol contains Pure Aqueous Brewers Yeast (no live cells)



## There's Not Another Like It

ARSENOFERRATOSE ELIXIR holds a distinctive position among liquid preparations of hematinic elements—because its organic iron is easily assimilated, its metabolism stimulating arsenic is therapeutically effective in minimal doses, and its delectable vehicle is agreeably palatable.

ARSENOFERRATOSE offers optimal regeneration of hemoglobin without producing undesirable side-effects; the stomach tolerates it at once and in full therapeutic amounts—thus the necessity for graduated doses is obviated; easy and convenient administration, precise and reproduceable pharmacologic action, and economy consistent with the type of fabrication required for this product—col-

lectively, these desirable attributes make Arsenoferratose *the iron preparation of choice!*

**Indications:** For the treatment of hypochromic and other secondary anemias... To cure iron deficiency disease... To build iron reserve... To hasten convalescence... To prevent insufficiency of iron in today's restricted diets... To counterbalance possible blood damage in sulfa-drug therapy.

**Supply:** Elixir Arsenoferratose, and Elixir Arsenoferratose with Copper, bottles of 8 oz. and 1 pt. Tablets, bottles of 100.

**Note:** 1 teaspoonful of the elixir supplies more than the daily minimum requirement of iron for the normal adult.

# ARSENOFERRATOSE

Trade Mark Reg. U. S. Pat. Off.

HEMATINIC AND ALTERATIVE

Literature and samples to physicians on request

RARE CHEMICALS, INCORPORATED, FLEMINGTON, NEW JERSEY



# "FIRST WE MUST STOP THAT DIARRHEA!"



(ulcerative colitis)

**N**ATURALLY, any condition as serious as ulcerative colitis calls for its own specific treatment.

The physician finds it necessary, however, to provide immediate relief from diarrhea while specific treatment is being instituted.

Kaomagma provides quick relief from diarrhea; consolidates stools

safely, checks dangerous fluid loss.

And the dosage is self-limiting to duration of condition, when, after an initial dose of 2 tablespoonfuls, 1 tablespoonful is taken after every bowel movement. In 12 fl. oz. bottles.



WYETH INCORPORATED  
Philadelphia

## KAOMAGMA

KAOLIN IN  
ALUMINA GEL

*Wyeth*  
REG. U.S. PAT. OFF.

REG. U. S. PAT. OFF.

—for quick relief from diarrhea...

## MEDICINE REACHES NEW HORIZONS



**T**he discovery of penicillin and of its wonderful power to successfully combat death-dealing germs has brought medicine to new heights of ability to cope with many hitherto baffling ills that beset the human body.

The intriguing story of how officials of pharmaceutical concerns gave penicillin production the "green light" and, with the invaluable aid of governmental agencies, feverishly planned for an adequate production—how mycologists, bacteriologists, chemists, and chemotherapists worked day and night—how 22 companies poured \$25,000,000 to \$30,000,000 into this enterprise—comprises a never-to-be-forgotten episode in the saga of American pharmaceutical industry.

We are proud that Roche has kept in full step with the great march of scientific and engineering progress which ere long will place the wonder drug—penicillin—in the hands of every physician . . . HOFFMANN-LA ROCHE, INC., ROCHE PARK, NUTLEY 10, N. J.

**PENICILLIN 'ROCHE'**

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AUGUST, 1944  
VOL. 86, NO. 2

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B U Y M O R E W A R B O N D S

# The Illinois Medical Journal

August, 1944

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Official Journal of the Illinois State Medical Society

EDITOR — Harold M. Camp. EDITORIAL BOARD — James H. Hutton, Chairman, Frederick H. Falls  
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Harry Culver, Walter Stevenson, Raymond W. McNealy.

## Editorials

### GOVERNMENT'S THREAT TO MEDICAL EDUCATION

In January 1944 it seemed that civilian and military needs for physicians would be met by the arrangements in which 55% of entering medical school classes would be provided by the Army Specialized Training Program, 25% by the Navy V-12 Program and the remaining 20% from civilian sources. In February the Army curtailed their Specialized Training Program and changed their plans to provide 28% of the 1945 entering classes instead of the 55% as previously planned.

In April the Selective Service System abolished all further occupational deferments of pre-medical and medical students not enrolled in medical schools before July 1st. As a result of this action it was believed that the entering classes in medical schools in 1945 would be reduced 25 to 30 percent. Protests at this ruling were made, but it was thought that the acute needs of the Army for young men were greater than the medical personnel.

The action of General Hershey and Selective Service System was reported in detail to the House of Delegates of the American Medical Association at its meeting in Chicago, and also the protests which had been registered in the effort to show the urgent need for a continued normal supply of medical graduates each year to maintain the health of the American people

properly. At the opening session of the A.M.A. House of Delegates on June 12th, the following resolution was introduced and passed:

WHEREAS, The present policy of the Army and the Selective Service System in preventing the enrolment of a sufficient number of qualified medical students will inevitably result in an overall shortage of qualified physicians, with imminent danger to the health and well being of our citizens; therefore be it

*Resolved*, That it is imperative that immediate action be taken by the President or the Congress of the United States to correct the current drastic regulations, which result in a restriction of the number of students qualified to enter the courses of medical instruction in approved medical schools.

The resolution was sent to the President, to the Secretaries of War and of the Navy, to the Selective Service System, and to the members of the House and Senate Military Affairs Committees.

On July 5th President Roosevelt replied to a letter he had received from Congressman A. L. Miller of Nebraska in which the President announced his unwillingness to overrule the recommendations which had been made by the Committee on Deferments for premedical students. In his reply the President stated that he had been advised that none of the premedical students could be of service in the practice of medicine prior to 1948 and that many of them would never practice medicine. He mentioned the fact that many young men who could not meet the rigid physical standards for military

service as well as young women desiring to study medicine could be considered as replacements for the normal premedical student groups, and also that many men discharged from service would no doubt be interested in taking a medical course.

On June 23rd Congressman Miller of Missouri introduced a bill (H. R. 5128) which reads:

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That section 5 of the Selective Training and Service Act of 1940, as amended, is amended by inserting at the end thereof a new subsection reading as follows:

"(n) There shall be deferred from training and service under this Act in the land and naval forces of the United States, as necessary to the maintenance of the national health, safety, and interest, in each calendar year not less than six thousand medical students and not less than four thousand dental students. As used in this subsection the term 'medical or dental student' means (1) a person who is enrolled in, and who is pursuing a course of instruction prescribed for the degree of doctor of medicine at an accredited medical college; and a person who is enrolled in, and who is pursuing a course of instruction prescribed for the degree of doctor of dentistry at an accredited

dental college; or (2) a person who is pursuing a regular course of instruction at an accredited college or university (satisfactory completion of which will make such person eligible for enrolment in an accredited medical or dental college) with the bona fide intention of entering an accredited medical or dental college and pursuing and completing the course of instruction prescribed for the degree of doctor of medicine or for the degree of doctor of dentistry."

Physicians throughout the entire country are working overtime and are endeavoring in every way possible to carry on while approximately 55,000 members of the medical profession are with the Armed Forces doing their part in the world wide conflict to care for the needs of the men and women in service and maintain the enviable record of having the lowest mortality rates ever known in warfare.

Many physicians who had completely or partially retired, are now working full time, while others who were formerly specialists in some field of medicine, have enlarged their fields of activity and are once more in general practice caring for all types of ailments for the duration.

Every state and county medical society, special medical society, dental society, every medical

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school and individual physicians everywhere should register their protest at the apparent disregard for medical care of the future, and should urge that the Miller Bill (H.R. 5128) be passed.

Letters should be addressed to Senator Robert R. Reynolds, Chairman, Senate Committee on Military Affairs; Representative Andrew J. May, Chairman, House Committee on Military Affairs; Senator Elbert D. Thomas, Chairman, Senate Committee on Education and Labor; Representative Graham A. Barden, Chairman, House Committee on Education. It is hoped that many hundreds of letters protesting the ruling of the Selective Service System and urging the passage of H.R. 5128, will be sent to the above named legislators immediately.

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#### THE ILLINOIS JOINT COMMITTEE ON SCHOOL HEALTH

The Illinois Joint Committee on School Health was organized September 25, 1943 under the combined leadership of the State Department of Public Health, Office of State Superintendent of Public Instruction and the State Department of Registration and Education. Dr. Roland R. Cross, Director of the Department of Public Health, is chairman. The committee is composed of 45 members representing the following institutions and organizations: State Department of Public Health, State Office of Public Instruction, State Department of Registration and Education, Illinois State Normal University, Southern Illinois Normal University, Northern Illinois State Teachers' College, Eastern Illinois State Teachers' College, Western Illinois State Teachers' College, University of Illinois, Agricultural Extension Service University of Illinois, Illinois Commission for Handicapped Children, Institute for Juvenile Research State Department of Public Welfare, County Superintendents of Schools, Illinois Association of School Boards, Illinois City Superintendents' Association, Illinois Congress of Parents and Teachers, Illinois Dietetic Association, Illinois Education Association, Illinois High Schools Principals' Association, Illinois Home Economics Association, Illinois Physical Education Association, Illinois Public Health Association, Illinois State Dental Society, Illinois State Medical Society,

Illinois State Nurses Association, Illinois State-wide Public Health Committee, Illinois Tuberculosis Association, Chicago Board of Education, Chicago Board of Health, and U. S. Public Health Service. Dr. Clair E. Turner, Professor of Public Health, Massachusetts Institute of Technology, is acting as a consultant in helping to map out policies and procedures.

In a general way the objectives of this committee coincide with those of the Educational Committee but its activities will be on a much larger scale.

It is hoped that prospective teachers may be taught how to impart health education to their pupils to the end that they will observe the rules of sanitation and right living and consult the physician early enough to have remediable defects corrected and to prevent the occurrence of some of the disorders that have rendered so large a percentage of present-day youth unfit for military service. It seems likely that this committee will go far toward coordinating the various health agencies, both public and private, in the state. There is no thought at this time of enlarging the scope of free and part-pay clinics. The committee deserves the support and cooperation of the physicians in Illinois. For the information of Illinois physicians we are publishing the Health and Physical Education Law.

#### ILLINOIS Health and Physical Education Law — Effective July 1, 1944 SENATE BILL 396

For an Act to provide for the health, physical education and training of pupils in the public schools, State Teachers' Colleges and State Normal Universities, and to repeal an Act herein named.

Section 1. Boards of Directors, Boards of Inspectors, Boards of Education of public schools and the Teachers College Board shall provide for the health, physical education and training of pupils of the schools and educational institutions under their control, and shall include physical education and training in the courses of study regularly taught therein.

Section 2. All pupils enrolled in the public schools and Teachers Colleges shall, as soon as practicable, be required to engage daily, during the school day, in courses of physical education for instructional period, exclusive of recess and lunch periods and equal in length to the regular periods of the school day; or, where local conditions make it advisable, by a program of a total of two hundred (200) minutes weekly distributed over a period of three or four days.

Special activities in physical education, or a modified course thereof, shall be provided for pupils whose

physical or emotional condition, as determined by the examination provided for in Section 4, prevents their participation in the regular courses provided for normal children.

Section 3. Courses in physical education and training shall be for the following purposes:

- (a) to develop organic vigor;
- (b) to provide bodily and emotional poise;
- (c) to provide neuro-muscular training;
- (d) to prevent or correct certain postural defects;
- (e) to develop strength and endurance;
- (f) to develop desirable moral and social qualities;
- (g) to promote hygienic school and home life; and
- (h) to secure scientific supervision of the sanitation and safety of school buildings, playgrounds, athletic fields and equipment thereof.

The Superintendent of Public Instruction shall prepare and make available courses of instruction in physical education and training that may be used as guides for the various grades and types of schools, in order to make effective the purposes set forth in this section, and the requirements provided in Section 2, and further, it shall be the duty of such Superintendent to see that the general provisions and intent of this Act are enforced.

Section 4. As soon as practicable, physical examinations, as prescribed by the Superintendent of Public Instruction, with the advice and aid of the Department of Public Health, shall be required of all pupils in the public elementary and secondary schools, except as herein after provided, immediately prior to or upon their entrance into the first grade, and not less than every fourth year thereafter. Additional health examinations of pupils may be required when deemed necessary by the school authorities.

Such examinations shall be made by physicians and dentists licensed to practice in the State. Cumulative records of such examinations shall be kept by the school authorities.

Individual pupils objecting to physical examinations on constitutional grounds shall not be required to submit themselves to such examinations, if they present to the boards of directors, boards of inspectors, boards of education, or Teachers College Board, a statement of such objection signed by a parent or guardian of the child. Exempting a pupil from the physical examination does not exempt him from required participation in the program of physical education and training provided in this Act.

Section 5. The curriculum in all State Teachers' Colleges and Normal Universities shall contain courses in methods and materials of physical education and training for teachers. No student or elementary school teacher shall be graduated from such college or university after July 1, 1944, who has not had a minimum of one course in methods and materials in the teaching of physical education and training.

Section 6. This Act shall be effective on July 1, 1944.

Section 7. "An Act to provide for physical training in the public and all the normal schools," approved June 25, 1915, as amended, is repealed.

## SOLDIERS VOLUNTEER AS "GUINEA-PIGS"; HELP QUELL SANDFLY FEVER

Through the work of a Commission sent by the Surgeon General of the Army to North Africa early in 1943, and the heroism of a group of American soldiers who volunteered to serve as "human guinea pigs," sandfly fever, which, through the years, has plagued armies operating in those parts of the world where it is prevalent, has been found to be a disease that can not only be prevented by immunizing susceptible personnel with inactivated virus but also by the use of chemical repellents for the sandfly which carries the disease. A report of the findings of the Commission, made by Major Albert B. Sabin, Medical Corps, A. U. S.; Lieut. Col. Cornelius B. Philip, Sanitary Corps, A. U. S., and John R. Paul, M.D., New Haven, Conn., is published in *The Journal of the American Medical Association* for July 1.

Sandfly fever is a disease caused by a virus and is of considerable military importance because of its occurrence in many parts of the world where troops are stationed, the investigators explain. "The adult native population," they say, "are for the most part immune, but when troops or other people from areas where the disease is not prevalent move into endemic zones they succumb in large numbers. While the disease is self-limited and there are no fatalities, its military importance lies in the fact that it can incapacitate large numbers of men for periods of from seven to fourteen days or longer at a time when their services may be needed most. . . ."

The Army has decorated many of the men who volunteered and allowed themselves to be bitten so that the Commission could obtain direct knowledge of the effect of the disease on human beings. In addition to immunity it was found that protection also can be obtained by applying dimethyl phthalate or a pyrethrum vanishing cream to the skin as a repellent.

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The public health and social benefits resulting from the hospitalization of infectious cases of tuberculosis are not sufficiently recognized. These social benefits need greater emphasis and the question of the individual's ability to pay should be subordinated to the more fundamental consideration of the public welfare. Robert E. Plunkett, M.D., N. Y. State Dept. of Health, Annual Report, 1942.

# Correspondence

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## TENTH ANNUAL MEETING MISSISSIPPI VALLEY MEDICAL SOCIETY PEORIA, ILLINOIS, SEPTEMBER 27-28

The Tenth Annual Meeting of the Mississippi Valley Medical Society will be held at the Pere Marquette Hotel, Peoria, Ill., Sept. 27-28. Over 20 leading clinician-teachers will put on the usual intensive program that has always featured this — "The Mid-West's Greatest Intensive Post-Graduate Assembly for General Practitioners." Sept. 27 will feature an All-Chicago program together with a fellowship hour and banquet. Sept. 28 will feature an All-St. Louis program which will include a Round Table discussion on Hypertension. There will be a big Exhibit Hall with numerous technical and scientific exhibits. A partial list of speakers includes: Drs. R. B. Allen, E. L. Compere, W. H. Cole, Eric Oldberg, and W. O. Thompson of the University of Illinois, Drs. Loyal Davis, N. C. Gilbert and A. C. Ivy of Northwestern University, Dr. David Slight of the University of Chicago, Drs. H. C. Allen, Edward Massie, R. A. Moore, and Karl Wattenberg of Washington University, Dr. O. P. J. Falk, R. M. Klemme, R. O. Muether and Alphonse McMahon of St. Louis University, Dr. E. P. Coleman, President, Illinois State Medical Society, Dr. M. E. Hennessy, President, Iowa State Society, Dr. A. S. Bristow, President-Elect, Missouri State Medical Ass'n., etc.

The entire program will be practical and will feature bed-side medicine. All ethical physicians are invited to attend. Medical officers of the army and navy are cordially invited to be guest of the Society. A detailed program of the meeting may be obtained from the

Secretary, Harold Swanberg, M.D., 209-224 W. C. U. Bldg., Quincy, Ill.

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## PLAN SANFORD R. GIFFORD MEMORIAL

The Chicago Ophthalmological Society is planning a memorial to the late Sanford R. Gifford in the form of a lecture on an ophthalmological subject to be delivered annually before the Society.

It is hoped that the many friends of Sanford Gifford will take this opportunity to contribute to this lecture fund in honor of the memory of one who made such outstanding contributions to ophthalmology as an author, a clinician and an inspiring teacher.

Contributors of \$10.00 or more will receive a notification of the time and subject as well as a printed copy of each lecture.

Contributions may be sent to the Secretary of the Chicago Ophthalmological Society, Dr. Wm. A. Mann, 30 N. Michigan Avenue, Chicago, Illinois.

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## STATE NURSING COUNCIL FOR WAR SERVICE

65,521 student nurses were recruited in the 1943-1944 period, according to an announcement received from Mrs. Ada R. Crocker, Chairman of the State Nursing Council for War Service, Illinois State Nurses' Association. This was a total of 521 more students than the national quota set by the U. S. Public Health Service. Mrs. Crocker stated that the Public Health Service had congratulated the agencies and groups which had participated in the recruitment, because of the splendid showing.

60,000 has been set as the goal for the 1944-

1945 fiscal year, and the importance of the program, not only to the war effort, but to the country's health, is stressed. The new quota, stated Mrs. Crocker, will require the united efforts of the Medical Profession, the Nursing Profession and all civic organizations.

### WOMAN'S AUXILIARY TO THE ILLINOIS STATE MEDICAL SOCIETY 1944-1945

The 1944-45 officers and chairmen of the Woman's Auxiliary to the Illinois State Medical Society are as follows:

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### INTERNATIONAL COLLEGE OF SUR- GEONS WILL MEET IN PHILADELPHIA.

The Ninth Annual Assembly of the International College of Surgeons will be held on October 3, 4, 5, 1944 at the Benjamin Franklin Hotel in Philadelphia, Pa. The program will be devoted to War, Rehabilitation and Civilian Surgery.

This Assembly, sponsored by the United States Chapter of which Thomas A. Shallow, M. D., F.A.C.S., F.I.C.S., of Philadelphia is President, has set up its Arrangement Committee with Dr. Rudolph Jaeger as General Chairman. Dr. Jaeger will be inducted as the incoming President of the United States Chapter at the Convocation on Wednesday evening October 4. The new president came to the Jefferson Medical College from Denver, Colo., where he specialized in Neurosurgery.

Eminent surgeons in Government, Military and Civilian practice have been invited to attend and present papers pertinent to surgery in their particular field of endeavor.

### PENICILLIN INJECTED INTO THE BRAIN

What is believed to be the first reported case of the injection of penicillin directly into the brain as an adjunct to injecting it into the spinal column for the treatment of meningitis is reported in *The Journal of the American Medical Association* for July 8 by Captain William S. McCune and Captain Jack M. Evans, Medical Corps, A. U. S. This case of staphylococcal meningitis is presented, they say, chiefly to show that injection into a ventricle or cavity of the brain as an adjunct to the spinal column route of administration is possible without untoward reactions and with good effect. Introduction of a needle into the ventricle in the acute stage of meningitis, they warn, should be performed with caution, and not until penicillin has been given intraspinally for several days.

# Medicine's Role in the War Effort

## REDUCE MORTALITY RATE OF CEREBRO-SPINAL MENINGITIS

The mortality rate from cerebrospinal meningitis in the Army has been reduced from 93.2 per cent in the Civil War to less than 3 per cent in the present war, through the use of small amounts of sulfadiazine, according to a recent announcement made by the War Department. A research group, working under the Preventive Medicine Service of the Office of the Surgeon General, discovered that the meningococcus which causes the disease is highly susceptible to small amounts of sulfadiazine, ranging from 2 to 6 Gm. The bacterium causing the infection is present in the throats or noses of most persons, it was discovered, and tests indicated that as little as 2 Gm. of the drug will eliminate these bacteria for a period of several weeks. According to Dr. John J. Phair of the School of Hygiene and Public Health at Johns Hopkins University, who heads the commission on meningitis, this fact makes it possible to head off epidemics by the occasional administration of sulfadiazine to all members of a military unit, especially under such circumstances as embarkation on a troop ship. The new discovery was revealed in a report of the commission's work by Dr. Francis G. Blake of Yale University, president of the Board for the investigation and Control of Influenza and Other Epidemic Diseases in the Army. Dr. Phair stated that of 100 soldiers tested in experimental work at Fort Meade, Maryland, 92 showed presence of the germs on several occasions during the test period of sixty-eight days. None were sick, apparently because the majority have an immunity to the infection. It is only when large numbers of men, some immune, some not, are thrown together, as in military camps, that epidemics occur.

In the armies of 1917 and 1918 there were 5,839 cases of cerebrospinal meningitis reported, with 2,279 deaths, a mortality rate of 39.2 per cent. Now with preventive medicine introducing new tactics and the sulfonamides providing a powerful weapon the current low incidence and low death rate in today's armies offer the possibility of complete defeat of the dread infection.

## CONSCIENTIOUS OBJECTORS CONTRACT DISEASE TO HELP ARMY FIGHT INFECTIONS

To aid the Army in its battle against influenza and pneumonia, three groups of conscientious objectors confined in camps in the United States volunteered to be infected with the virus of these diseases, according to a report made to the Preventive Medicine Service of the Office of the Surgeon General and announced recently by the War Department. A total of 94 of the 122 men involved became ill, some of them seriously, but all recovered. The report was made by Dr. Francis G. Blake of Yale University, president of the Board for the Investigation and Control of Influenza and Other Epidemic Diseases in the Army. It covered research done in the last year by two of the board's component commissions, that on influenza headed by Dr. Thomas Francis Jr. of the University of Michigan, Ann Arbor, and that on acute respiratory diseases headed by Dr. John H. Dingle of Fort Bragg, N. C.

The influenza work was done at the camp at Wellston, Mich., by Dr. Jonas E. Salk and Dr. Thomas Francis of the University of Michigan and by Dr. Paul R. Cannon, Dr. Francis B. Gordon and Dr. Clayton G. Loosli of the University of Chicago. Two tests were made. In the first, 79 volunteers served in three groups. One group of 26 inhaled a spray of plain salt water (unknowingly) and then a spray of a laboratory strain of active type A influenza virus. This was a control group. A second group of 27 men received a spray of human serum and then the active virus. A third group of 26 received the serum, but the virus given them had been inactivated with ultraviolet rays. Within eighteen to twenty-four hours all 53 men in the first two groups had influenza, recovering without complications in two to four days. A second test was set up in which more potent serum, taken from the sickest men of the first group, was used on 31 other volunteers. Greater concentrations of serum over longer periods of inhalation were used on these men and the serum was inhaled after, as well as before, the virus. A weaker virus also was used. Sixteen of the volunteers got serum and virus and fifteen got

salt solution and virus. Again all who got the active virus got influenza. However, the occurrence of high fever, 103 F. or better, was much lower in the second group. It was concluded by the investigators that vaccination offers more hope of protection against influenza than passive immunity through inhaled serum.

Working with Dr. Theodore J. Abernethy, Dr. Alexander D. Langmuir and Dr. Charles H. Rammelkamp of the Respiratory Disease Commission, Dr. Dingle's study was carried on at the camp at Gatlinburg, Tenn., where 45 to 50 men volunteered to permit their noses and throats to be sprayed with washings from the noses of 7 soldiers at Fort Bragg who had primary atypical pneumonia, which does not respond to treatment with serums and sulfonamides. Twelve of the healthiest and soundest volunteers were selected for the experiment. Respiratory illness, varying in clinical manifestations and severity, developed in 10 of the 12 volunteers. Three of them were quite ill and went to the hospital, but all recovered quickly and satisfactorily. This was the first time that primary atypical pneumonia had been so transmitted, and it makes important the study of the test material for the purpose of isolating the infective agent — work which is now in progress.

The employment of conscientious objectors as test subjects was done with the approval of the Selective Service System, Major Gen. Norman T. Kirk, U. S. Army, the Surgeon General and the National Service Board of Religious Objectors, Washington, D. C. It was done on an entirely volunteer basis after the purposes, reason and dangers of the experiments had been fully explained.

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#### REHABILITATION CENTER FOR BLIND

A rehabilitation center where blinded veterans of all branches of the service will receive extensive training to fit them for successful civilian lives recently opened at a former boys' school at Avon, Conn. All blinded servicemen will be sent to the center after they have received maximum benefit from medical and surgical treatment in service hospitals. The new installation, which was leased from the Avon school, will be known as the Old Farm Convalescent Hospital and is under command of Col. Frederic Thorne. The purpose of the center is to provide additional training for the blind in personal and social adjustment. They will be given extensive prevocational training on a sampling basis to determine as far as possible those occupational fields in which they will have the best chance of success after discharge from the service. The center maintains a staff of about 100 specially trained civilian and military supervisors, including vocational advisers and occupational therapists. It is planned to increase the size of the staff proportionally in the event of an increase in the number of blind casualties. To date there are 185 blind casualties from all branches of the service. Not all of these suffered blindness in combat.

Instruction will be given in such different kinds of work as stenography, typing, filing, general clerical

tasks, metal and wood working, operation of small concession-type stores, and specialized farm jobs. Whenever possible, arrangements will be made to provide facilities for special studies in which patients may be interested. A staff of blind instructors has been selected to assist in helping patients reconcile themselves to their handicaps and overcome them. These instructors will conduct classes and personal interviews and will teach the men reading, writing and typing by the braille method. On completion of a patient's social adjustment training, the Veterans Administration will arrange for any additional training he will require to fit him for a job, will help him find a job and maintain contact with his employer in seeing that he makes satisfactory progress.

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#### THE MAYO GENERAL HOSPITAL

The Mayo General Hospital at Galesburg, Ill., was formally dedicated July 10.

The hospital was named in honor of Drs. William and Charles Mayo and is a tribute to their contribution to the medical service in the first world war. It is constructed on a 155 acre site at the north limits of Galesburg and has seventy-seven buildings of red brick, all except eight of them of one story. A forty-five room administration building and nurses' and officers' quarters are two stories high. It has approximately 1,650 beds. The hospital has its own post office, telephone and telegraph office, post exchange store and lunchroom, laundry, gymnasium, recreation halls and medical and quartermaster warehouses. The hospital was officially opened February 1 and is now treating American soldiers brought back from war zones and those injured in training throughout the country.

The medical officers at present on duty are:

Col. Henry L. Kraft, commanding officer	Capt. John C. Mason
Col. Emery B. Neff	Capt. Stuart W. Russell
Lieut. Col. Ford K. Hick	Capt. George E. Sanders
Lieut. Col. Jasper N. Knox	Capt. Chas. M. Schroeder
Lieut. Col. Philip Lewin	Capt. Albert O. Singleton
Major Howard W. Berg	Capt. Max E. Webber
Major Casper M. Epstein	Capt. Norman T. Welford
Major Ralph H. Fouser	Capt. Harold J. Werbel
Major Edward A. Gall	1st Lieut. John A. Aita
Major Richard E. Kinzer	1st Lieut. Daniel H. Bar-
Major Emanuel Krinsky	enbaum
Major Paul R. McConnell	1st Lieut. Eustace G. Hes-
Major Edwin O. Niver	ter
Major Martin Patmos	1st Lieut. Robert E. Lartz
Major Elkin L. Rippy	1st Lieut. A. G. Richard
Capt. John J. Andrina	Perlini
Capt. Howard G. Billman	1st Lieut. Erich H. Russow
Capt. Manuel G. Bloom	1st Lieut. Archer J. Sokol
Capt. Harold W. Christy	1st Lieut. Joseph J. Sper-
Capt. Millard Jeffrey	anza
Capt. John H. Johnston	1st Lieut. Robert G. Swan-
Capt. Willard Z. Kerman	son
Capt. Francis C. Lane	1st Lieut. Harry Taylor
Capt. Albert E. J. Lohmann	1st Lieut. J. B. Westfall

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#### CAPTAIN ISIDORE BRILL

The Army Air Medal was recently awarded to Capt. Isidore Brill for "meritorious achievement while participating in an aerial flight in the African theater on June 29, 1943." Dr. Brill was practicing medicine in Champaign, Ill., at the time he entered the service in the Air Transport Command of the Army in August 1942.

### TYPHUS NO LONGER IMPERILS U. S. SOLDIERS

Brig. Gen. Leon A. Fox, field director of the U. S. Typhus Commission, recently stated that "typhus has been removed from the list of diseases fatal to the American soldier." General Fox was recently credited with having saved Naples last January from what might have been one of the worst typhus plagues in history and with having stopped the epidemic in record time. General Fox attributes this accomplishment to the Army's DDT powder and to the complete co-operation given to him by the commander of that area. In one day during the typhus epidemic in Naples General Fox's typhus team treated 73,000 people with DDT powder. Having arrived in Naples when the epidemic was just getting under way with the civilian population (December 20) General Fox went to work with his crew and by February 1, at a time when ordinarily there would be 500 cases a day reported, there were only 5 to 6 a day, and the epidemic was over. Although vaccinated against typhus, each soldier carries a small can of DDT powder.

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### THE GARDINER GENERAL HOSPITAL

The Gardiner General Hospital in Chicago, the first army hospital to be named after a nurse, was formally dedicated July 9. A feature of the program was the presentation of a portrait of Lieut. Ruth M. Gardiner, after whom the hospital was named. Lieutenant Gardiner was killed in Alaska in July 1943 in an airplane crash while evacuating wounded soldiers.

The hospital was opened in December 1942 and has a bed capacity of 1,250. It is being used as a military hospital for the Army Air Force's Technical Training Command. Col. John R. Hall is commanding officer. Col. Florence A. Blanchfield, superintendent of the Army Nurse Corps, and Brig. Gen. Fred W. Rankin were present at the dedication.

Lieutenant Gardiner graduated with the second class of flight nurses from the School of Air Evacuation, Bowman Field, Ky., on Feb. 18, 1943 and left there for evacuation duty with the Eleventh Air Force in Alaska on April 22. She was the first army flight nurse to be killed in World War II.

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### SPECIALIZED WOMEN WANTED FOR ARMY

An opportunity is now open for certain specially trained women to serve with the Medical Department of the Army in the Women's Auxiliary Corps. The following are some of the positions open to qualified women who may be enlisted for service with the Medical Department: pharmacists and pharmacists' aides, orthopedic mechanics, laboratory technicians, x-ray technicians, lip reading technicians, braille technicians (instructors), occupational therapists and aides, dental laboratory and hygienist technicians and dental aides. Interested persons should apply to the local officer of the Procurement Service or to the WAC recruiting office.

### FROSTBITE AMONG AMERICAN COMBAT AIRMEN GREATLY REDUCED

Brig. Gen. Malcolm C. Grow, surgeon chief of the Air Service Command, recently announced that frostbite among American combat airmen has been reduced 1,500 per cent in one year. The chief factors in this tremendous reduction are improved electrically heated flying clothing, face masks, gloves and the new windows for waist gunners aboard fortresses and liberators. General Grow stated that "in April 1943 60 men out of every 10,000 flying operationally suffered frostbite, which in many cases resulted in amputations and permanent injuries to the victims. Today, thanks principally to the waist window, which reduces wind blast 90 per cent, that figure has been slashed to 4 in 10,000." Of 131,000 combat crewmen flying in operations during April 1944, only 56 were hospitalized for frostbite.

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### DRUG SUPPLY DEPOTS ESTABLISHED IN EIGHT MAJOR PORTS

The War Shipping Administration recently announced the establishment of drug supply depots in eight major ports, which will assure a supply of essential drugs for men in the American Merchant Marine. Supplies of penicillin, dried blood plasma, insecticides and quinine will be maintained in depots at the ports of New York, Portland, Ore., Seattle, New Orleans, Norfolk, Va., Baltimore, San Francisco and Philadelphia. This will enable the operators of all WSA owned or chartered vessels to maintain readily a supply of essential medicines as prescribed in the minimum drug list. Preparations such as these are not always available in quantity on the open market, and the cooperation of the War Production Board and the armed services was established in setting up the WSA depots. Supplies will be allocated from the depots to operators on an actual cost basis.

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Pulmonary tuberculosis is present in a significant proportion of adult patients admitted to general hospitals and remains undetected during the hospital stay unless all patients receive routinely a chest X-ray examination. Such unrecognized tuberculosis is a hazard not only to the patients themselves but also to the hospital employees who may be exposed to it. One of the measures essential to the solution of this problem is routine chest X-ray examination of employees.

Although the discovery of tuberculosis among hospital employees is necessary for the protection of both employees and patients, the detection of the disease in patients is obviously of equal if not greater importance. It is hoped, therefore, that hospitals, physicians, and others will give more recognition to the existence of this problem and to the need of a complete plan of action, including routine chest X-ray of all adult admissions as well as periodic examination of medical students, nurses, and all other employees. N. Y. State Dept. of Health, "Health News" May 8, 1944.

# Original Articles

## TEST OF LABOR

W. C. DANFORTH, M.D.

EVANSTON

I realize that I deal with a subject about which there may be much discussion. Opinions vary from condemnation to approval and this within the ranks of experienced obstetricians. I think, however, that the majority of men who work in our field believe that, in a few cases of relative contraction of the pelvis, that a trial to see whether the head will enter the pelvis is a useful and justifiable procedure. Two terms are in use, test of labor and trial labor. A real test of labor, in the fullest sense of the word, will only have been had when the cervix is dilated, the membranes ruptured, and pains of normal strength, at intervals of not longer than five minutes, have gone on for not less than one hour. A trial labor, on the other hand, does not go as far as this. A trial labor is not employed for the purpose of causing moulding of the head, if this is possible, for this occurs only after complete dilatation, when the head can descend into the pelvis. It is used to determine whether or not disproportion may be present, and this, in most cases, may be ascertained before the labor has gone to the extent demanded by a true test of labor. A trial labor will be used more frequently than the true test. In our own experience this has been true although, in a few cases, we have gone on to the extent demanded by the actual test of labor.

Both of these procedures find their usefulness in the class of borderline pelvis. Those in which labor is clearly impossible should not be sub-

jected to it. The development of methods of measurement of the pelvis by means of the x-ray has added to our former methods of pelvimetry another of real usefulness. If radiologic pelvic examination is to be employed, it must be done accurately, and by one of the accepted technics. The work of Caldwell and his co-workers and of Thoms has added considerably to our knowledge of this field. An ordinary flat plate is of little use. It must be remembered, too, that a test of labor is of use only in disproportion involving the pelvic inlet. It will help not at all in dealing with funnel pelvis, for, by the time the head has descended in the pelvis to the level at which the obstruction caused by an outlet narrowing begins to operate, the optimum time for section has passed. This, if present, should be recognized before labor begins. This may be done by careful pelvic measurement, including the outlet. A properly taken roentgenogram will help greatly.

The chief use of either a trial or a test labor is to ascertain whether, in a case of borderline contraction, the head of the infant will enter the pelvis. Here, I believe the procedure has a real but limited field of usefulness. In most clinics experience has shown that, in this group of cases, about 75% will terminate without the need of opening the abdomen. If a trial or test labor were not used, more abdominal deliveries would be done than are needed, for the obstetrician, in order to avoid the possibility of discovering that operative intervention is needed after the time for the safe use of abdominal delivery has gone by, would be likely to make use of Caesarean section more frequently than is needed. The judicious use of the test of labor

Chief of Department of Gynecology and Obstetrics, Evanston Hospital, Evanston, Ill. Read before the Mid West Travel Club, November 20, 1943, Chicago, Illinois.

will reduce rather than increase the number of abdominal deliveries. While relatively accurate information as to the size of the fetal head may be obtained, it is difficult to estimate in advance the degree to which it will mould. A head which will adapt itself to the pelvic diameters will enter the pelvis when a very hard one will not.

The operation may be regarded as indicated when the pelvis is moderately contracted. In the presence of a contraction of sufficient degree that the head definitely can not pass through, the test or trial of labor is of no use and should not be employed. Besides the relative degree of contraction one may also consider certain cases of tumor of the uterus, particularly myomata of the lower part of the uterus which appear to obstruct the inlet. These will sometimes rise out of the pelvis toward the end of pregnancy, thereby removing the obstruction to labor. This is brought about by the formation of the lower uterine segment which takes place as the pregnancy nears its end. If the tumor is still in a place in which it may seem to threaten the progress of the labor the patient may either be treated by section at once without trial of labor or, if the tumor seems not to lie so deep in the pelvis that its rising out of it is precluded, the labor may be allowed to go on long enough to demonstrate whether it is going to rise out of the way early enough in the labor that the patient is not exhausted nor does the uterine wall run the risk of rupture. Constant observation is needed in case a trial is employed under such circumstances. This particular contingency will arise but seldom.

The safety of the procedure is a question which merits careful consideration. The old classical section was quite unadapted to use in such cases. The statistics of Eardley Holland, published at least a dozen years ago, indicate clearly the differences in mortality between groups of cases done by the classical method before the onset of labor, shortly after, and after various forms of interference. The mortality rate varied from 3% to 24%, the latter figure occurring in the group done after long labor, the membranes ruptured for varying periods of time and after attempts at delivery from below. The low cervical operation, known also as the laparotrachelotomy and the low flap Caesarean, is far

better adapted to use in cases subjected to test or trial labors. The need for complete surgical cleanliness is supreme. These labors must be conducted in such a manner that the birth canal remains surgically clean. The progress of the labor should be followed by abdominal palpation, rectal examination, and, in clinics which are equipped to do it, x-ray examination. We have been accustomed, in cases in which a need for further information exists, to make one vaginal examination, usually shortly before the determination to end the labor by section has been arrived at. This is done under complete asepsis and, after the examination is complete, 30 c.c. of 4% mercurochrome is instilled into the vaginal vault. One of the causes of the high mortality after abdominal delivery in this country is the failure of the doctor to understand that the favorable mortality figures reported from the best clinics are due to a clear understanding of the conditions under which the operation may most safely be performed quite as much as to the better technic which is found in these institutions. The average general surgeon does not clearly understand the reasons for the great difference, as well as the difference itself, between Caesarean done under proper conditions and one done after the birth canal has become contaminated.

There seems at present to be a general agreement among obstetricians concerning the use of induction of labor before term in the management of contracted pelvis. Induction before term has been unsatisfactory particularly because it leads to the birth of infants which, in some cases, are ill fitted for extra-uterine existence. The majority of clinics reject this plan and prefer to allow the expectant mother to go to term, go into labor, and, after sufficient time has elapsed, to deliver her by abdominal section if the head refuses to enter the pelvis. If the contraction, as demonstrated by careful study, is great enough that there seems little likelihood of the head entering the pelvis, section may be done as an elective procedure.

The advent of the low cervical section has aided materially in the use of trial or test labor. In my early years in practice, when the old classical operation was the only one available, we feared to allow labor to continue long enough to have a real trial as to the possibility of delivery.

One would decide at first to do a section or commit one's self to the vaginal route, with a possible craniotomy at the end if one's judgment was at fault.

Intelligent selection should be made of cases to be submitted to the test or trial of labor. It is not fair to the patient to dispense with all careful consideration of possible disproportion and to allow the labor itself to decide the issue. To do this would subject some patients to the suffering of labor when a more careful evaluation of the pelvis prior to labor might have indicated that normal delivery was impossible. Those who are fortunate enough to work in those clinics which are equipped with precision radiographic apparatus, and who may call upon the services of an expert radiologist, may carry out very accurate studies of the pelvis. The work of Caldwell and his associates and that of Thoms has added much to our knowledge of obstetric radiology. In clinics as well equipped and staffed as those in which these men work, a sufficiently accurate study may be made that nearly all of the cases which otherwise might be subjected to the trial of labor, may be placed before labor begins in the impossible class or it may be ascertained that abundant room exists and that a test of labor need not be thought of. Even without the elaborate equipment which one finds in those clinics in which much attention has been given to roentgenologic study of the pelvis, one may by simpler means, arrive at a very satisfactory degree of accuracy. Two very simple devices, for which we are indebted to the Sloane Clinic, have aided us materially in estimating pelvic capacity. The first is a simple rod, marked at intervals of one centimeter with inset pieces of wire, so that, when a roentgenogram is made, a dot is seen at measured distances from one another on the rod. If this is placed in the genital crease, and a film taken laterally with the woman in the erect position, and with the target exactly 36 inches from the screen, a picture will be obtained in which the rod with its markings will also be seen. The distortion in diameters which may exist on the picture of the pelvis will also exist in the shadow of the rod and in exactly the same proportion. Then, by measuring the shadow of the antero-posterior diameter of the pelvis with a ruler or piece of tape, and then placing ruler or tape

against the image of the rod, one may read off in centimeters the length of the antero-posterior diameter of the pelvic inlet. This can be done without special equipment other than the rod.

An excellent picture of the outlet and the sub-pubic arch may be obtained by placing the patient on her back with the film-holder under her, with the target at an angle of about 45 degrees. This gives an excellent picture of the sub-pubic arch. In any case in which outlet narrowing is suspected, measurement of the bi-ischiatic diameter should be made, using the outlet pelvimeter of Thoms or some other satisfactory instrument. I have found that of Thoms to be the one which has served me best. Consideration of the outlet also calls for an estimation of the length of the anterior and posterior segments of the antero-posterior diameter of the outlet. Should a serious outlet obstruction be found after labor has progressed to the point at which obstruction from this cause would be noted, it is too late for a safe Caesarean.

Careful study of the pelvis before labor will enable the obstetrician to decide more accurately the likelihood of the head passing through it and thus the number of test labors may be reduced. The size of the fetal head and its capability of moulding are both things which may not be foretold with great accuracy. This leaves us with some variables which may cause any previous estimate to be in error. All that should be expected of a test or trial labor is that it should show whether the head will enter the inlet. It is quite useless in the management of funnel pelvis. It is a serious error in pre-natal diagnosis to allow a labor to begin and progress to the point at which the use of section is accompanied by a markedly increased operative risk with an unrecognized outlet narrowing. This must be known before the labor begins, as we must not depend upon labor to answer the question as to whether the head will pass through the lower levels of the pelvis. As the narrow sub-pubic arch and converging sidewalls may be demonstrated radiologically and the bi-ischiatic diameter may be measured there seems little reason for failing to recognize it.

If, in a case in which a questionable disproportion exists, one is to await the trial of labor to ascertain whether the head will enter the pelvis, it must be remembered that surgical

cleanliness of the most rigid type must be observed. Caesarean section is not a procedure to be employed after many examinations or after attempts at delivery from below. Every obstetrician of experience understands the difference between the risk of an elective operation and one done after many hours of labor, especially when the birth canal has been repeatedly invaded. This fact has not yet been sufficiently impressed upon many general practitioners and surgeons who see women in labor in the less well organized hospitals and who are sometimes inclined to look upon abdominal delivery as the answer to most difficult obstetrical problems. When complete surgical cleanliness cannot be assumed, it is better, at least from the purely surgical point of view, to do some form of destructive operation.

In our own service, in a period of ten years, 343 abdominal deliveries were done. The maternal mortality of this series is 0.88%. Many of these were elective but a large number were trial or test labors. In no case was any attempt made to deliver from below and in all cases the birth canal was treated with complete surgical respect. Before deciding upon section, if it seemed necessary, in order to obtain information not derived from abdominal palpation or rectal examination, one vaginal examination is made. This is done under carefully aseptic conditions. If the membranes have been ruptured, or if an examination has been made, thirty cubic centimeters of a 4% solution of mercurochrome in water is instilled into the vaginal vault. The low cervical section is the usual method.

To sum up — test labor must not be regarded as a substitute for careful pre-natal study of any possible disproportion. There is never an excuse for clinical laziness and most cases in which disproportion of any extent exists may be detected before labor begins. This makes it possible to use the abdominal delivery at the time of greatest safety, that is, as an elective operation. If a trial is to be had, the birth canal must be preserved from all contamination and in particular, no attempt at delivery from below should be made. The low cervical type of operation is best.

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"Don't be downhearted," said the steward to the suffering passenger. "Nobody ever died of seasickness."

"Don't say that," moaned the stricken one. "It's only the hope of dying that's kept me alive so far."

## A RECONDITIONING PROGRAM FOR DISABLED SOLDIERS

HAROLD C. LUETH

LIEUTENANT COLONEL, MEDICAL CORPS, A. U. S.

Maximal utilization of the nation's manpower is of vital concern to everyone. With the realization that the manpower resources of the country are limited and an awareness of the tasks of total war, every effort must be made to garner the total resources of manpower. The Medical Department of the United States Army has recently put into operation a plan designed to return sick and injured soldiers to full duty as soon as is possible, by means of the resources of modern medical treatment. A sound realistic approach to the problem has already been put into execution at several large general hospitals.

The new program seeks to restore as many men to duty as early as possible, as is reflected in the new terminology. The word "rehabilitation" is used only in conjunction with the retraining of the blind and deaf. Patients with all other disabilities are said to be "reconditioned," for future useful service. It is believed that much of the unnecessary chronic invalidism of the past generation will be avoided by the change in viewpoint and nomenclature. Basically the program aims to return as many disabled soldiers as possible to duty at the earliest possible time.

At a recent conference on reconditioning, held at the Schick General Hospital, Major General Ray E. Porter, Assistant Chief of Staff of the War Department General Staff, pointed out that the Army is nearly up to its full allotted strength of 7,700,000 men and women. "Every man and woman in the service has a definite assignment. When new units are needed old ones must be inactivated to provide the necessary personnel. Young men returned to hospitals are in fact the cream of the nation's manpower."

Reconditioning must include: physical, mental and emotional reconditioning.

Proper reception of soldiers at the hospital aids greatly in the success of the reconditioning program. At Schick General Hospital the soldier has explained to him in detail the rules of the hospital, the things that are expected of him, the system of passes and leaves, and the nature of the reconditioning program. Also,

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Given before the Ogle County Medical Society on April 20, 1944, at Oregon, Illinois.

upon admission, a classification officer makes a positive analysis of the main educational training and capabilities. As the result of these long and friendly interviews, men are better informed as to hospital routine and adjust themselves surprisingly well. Misassignment, a frequent occurrence in the past, is avoided through reclassification.

All patients are required to spend the first seven to ten days in the hospital after admission. This allows sufficient time for a complete medical examination of the patient and conditions him to hospital life. During this period the concept of an early return to full duty is impressed on all men in whom recovery appears possible. Those men who will probably be unable to resume full duty are indoctrinated with the will to serve as limited service men. It has been found advisable to drop the word "patient" and use "trainee" in the reconditioning program.

Physical reconditioning is begun as early as possible. Soldiers are classified, according to their physical condition, into four classes. In order of increasing capability to perform physical exercise, they are:

CLASS 4: Patients confined to bed or the ward, and those considered as convalescent.

CLASS 3: Ambulant hospital patients still receiving treatment which is paramount. They may be divided into groups for medically supervised exercise according to their anatomical limitations, such as upper and lower extremity and abdominal, and special trainees. It is important this class be given frequent rest periods alternating with exercises.

CLASS 2: Men capable of six hours of physical training, to include calisthenics, drills, marches, outdoor fatigue and athletic sports.

CLASS 1: The group of men nearest the point of recovery. Daily physical training should enable them to engage in an eight hour activities program that will fit them to pass a physical fitness test and carry out a fifteen mile hike before return to duty.

Bed patients, Class 4, receive such physical exercise as their medical officers prescribe. Ward leaders are selected by reconditioning officers to act as platoon leaders and give the actual physical exercises. Some care must be exercised in the selection of ward leaders, so that soldiers are inspired and work with the trainer. Group participation enhances individual satisfaction. Noninjured parts of the body can be exercised much earlier than has been

common practice. Deep breathing, head roll, arm and forearm thrusts, knee and leg movements are some of the exercises given Class 4 patients. Careful supervision is maintained at all times, so that patients are not taxed beyond their physical capabilities. Emphasis throughout is on the coordination of exercises, such as proper cadence and timing with adequate rest periods. The exercises are done in the wards, preferably in groups of 25 men or fewer. Depending upon the physical condition of the men, the exercises are conducted daily for periods of fifteen to sixty minutes.

Some experiments in Army Air Force Hospitals under the direction of Lt. Col. Howard A. Rusk, M. C. demonstrated early return to duty following a well planned program of physical exercises for hospital patients. Soldiers recovering from virus pneumonia were given systematic deep breathing exercises and it was found the hyperventilation cleared up residual areas of atelectasis earlier than simple bed rest. Convalescents from contagious diseases were returned to full military duty about one week earlier through the active operation of a physical reconditioning program. A carefully graduated plan of exercises returned orthopedic trainees to duty in half the time formerly required. Experiments showed that active exercise actually speeded up blood flow and increased vascularity of the part thus trained.

Games and some modification of sports are carried on in the wards to alternate with the calisthenics. Quoits, modified shuffleboard, darts, indoor horseshoes, and the throwing of medicine balls and volley balls are among the games played. The playing of games relieves the monotony of calisthenics and provides additional interest in the program. In some hospitals ward attendants, medical department soldiers and nurses participate, which greatly increases group spirit and enthusiasm.

Educational reconditioning is carried out by the showing of training films, strip bulletins and news "shorts." Orientation lectures and the use of the circulating library are additional features of educational and emotional reconditioning. Instruction is given in periods of forty-five to sixty minutes, two, three or more times daily as conditions warrant.

Handicraft is also done in the wards, and it

is largely diversional in nature, such as: weaving leather purses, making tufted cotton sashes, leather belts, and hammering metalware.

Ambulant trainees are given more strenuous programs. Physical reconditioning is carried on by prescription of the medical ward officer. Men are grouped according to their physical capabilities. Some hospitals divide Class 2 and 3 trainees into subgroups 2A, 2B, 3A and 3B. It avoids having too many trainees participate in group drills beyond their physical limitations. The purpose of mass exercise is twofold: muscular development and discipline. More is lost to the group by the ragged performance of some exercises than is gained by the individual attempting to exercise beyond his capability. It is wiser to correct this defect by lowering the performance requirements or transferring those unable to keep abreast in mass drills to a special group who are given easier exercises. Division into subgroups A and B retains a number of men in each category without too many individual differences.

Physical reconditioning of Class 1, 2 and 3 trainees should be varied. Group calisthenics under qualified leaders and supervised by medical officers is an important feature. Grass drills similar to those used by football and basketball coaches to "warm-up" players help develop stamina for short intensive exercise. It is important to develop the combative spirit in the soldier, so bodily contact sports such as: hand wrestle, wrist bending, pull hands, rooster fights and step-on-toes are added to the physical training program. Combatant games and sports require the active participation of each trainee. In calisthenics and grass drills a man may halfheartedly participate and successfully elude detection, while in combatant sports he must put forth his full effort or suffer the consequences. Traditional gymnastic exercises and sports such as volley ball, shuffleboard, table tennis and handball provide additional exercise and arouse interest through diversification. A modified obstacle course can be arranged through improvisation and ingenuity. It will afford a means of testing the effectiveness of the reconditioning program. It is amazing to see how well men with casts on their arms, forearms or legs are able to participate in the various phases of the program. Men with casts or injuries are excused from

those exercises that require the use of the afflicted part.

Soldiers are encouraged to select the type of occupational therapy they desire. As soon as the men are ambulant, they are sent to the occupational therapy work room where they are taught carpentry, printing, weaving on a hand loom, operation of a band saw, and other skills. It is wise to train men in definitive carpentry or machine work. At the Schick General Hospital radio repair work and printing are taught. Such instruction gives men additional skills at which they may earn a livelihood and dispels the implied invalidism of trifling diversional occupational pursuits.

Soldiers who are returned to full duty usually select projects of some use to them. Weaving rugs, for example, is chosen by a number of trainees. Small rag rugs are preferred work projects since they can be finished quickly and soldiers may take them along after they leave the hospital. At the Walter Reed General Hospital furniture made by trainees in the occupational workshop is put together by screws so that it can be easily dissembled. The soldier usually can find means to take the "knocked-down" furniture along with them. Special hospital forms are printed in the hand press at Schick General Hospital for use in the institution.

Educational training for the ambulant soldier closely follows the physical training. Basic and advanced military topics are taught. Defense against chemical warfare, field sanitation, first aid, map reading, security, and other subjects are taught by film strips, sound films, lectures and demonstrations. Patient officers or noncommissioned officers with combat experience make ideal instructors. They impress trainees with the real value of the subjects under discussion, from their personal experience.

Ambulant soldiers are requested to participate in one hour panel discussions once a week. Meetings are held in the Red Cross auditorium or other suitable assembly rooms. Subjects are chosen by the men. Groups of 50 men or less are most effective. However, at times the audience may be 100 or more men. The officer in charge of the orientation courses, as they are called, has slips of paper distributed to soldiers in advance of the meeting. Trainees are en-

couraged to write down subjects for discussion and to volunteer as speakers. Subjects in greatest demand are discussed by men selected from the group most qualified to speak. Usually two to four speakers give short talks on various aspects of the subject. A fourth soldier is selected as the moderator of the meeting. Source material is made available to the men by the orientation or educational officer, utilizing all available resources such as: the hospital library, prepared information packets of the Morale Service Division ASF, maps, bulletins and movies. After the scheduled talks questions are asked by the audience. Full and free discussion is encouraged.

Current events, panel displays of maps and recent war news, extension courses from the Armed Forces Institute, Madison, Wisconsin, music, short theatrical performances, and exchange service are some of the many additional features provided by the Morale Service Division, Special Services Division, American Red Cross and other agencies.

Soldiers are given their uniforms as soon as they are able to be up a part of each day. Wearing the uniform is a reminder to the man that he is still a soldier and helps to emotionally recondition him for further military service. Military training is used as early in the program as possible, for it also helps get the soldier in the proper frame of mind.

Class 1 and 2 trainees are treated just as the enlisted men of the hospital detachment. In some places they live in barracks apart from the hospital, wear the regulation service uniform and are trained and drilled just as other soldiers. Daily sick call is held and they are given such additional medical treatment as they need. Daily calisthenics, drill, gymnastics, obstacle course training, and games and sports are rigid requirements. A graduated system of training is employed with a view toward having all class 1 physically fit before they leave the hospital. Trainees must satisfactorily complete a fifteen mile hike with a pack before they are returned to their units for full military duty.

A number of trainees were asked for their frank comments on the reconditioning program. Many of them objected to the program at first, but soon realized its value. All of them were satisfied when the purpose and aims of the train-

ing were fully explained to them. Most of the soldiers liked the exercise and group discussion and felt the value of group participation. It has meant a great deal to the average ambulant patient to have a well organized plan for physical, educational and emotional reconditioning in operation at the hospital rather than have him sit about idle. A majority of trainees said they felt the reconditioning program did much to improve their physical condition. They were getting their strength back faster and would join their units sooner.

#### SUMMARY

A practical scientific program for the reconditioning of disabled soldiers has recently been put into operation in all army hospitals, by the Surgeon General. It is designed to return sick and injured men to full duty at the earliest practicable time, thus conserving the trained manpower of the nation. The program includes physical, mental and emotional reconditioning. Physical exercises are begun as early as possible and in many instances they are started while the patient is in bed. The ward medical officer prescribes the physical training and specifies when it can be begun and the amount to be given. The basis of physical reconditioning rests on a graduated system of calisthenics, drills, sports and military training. Coincident with physical reconditioning, mental and emotional reconditioning are conducted by specially trained officers and enlisted men. Early results of the new program indicate that soldiers are returned to full duty much earlier than under previous plans. The ultimate success of the plan rests with the individual medical officer, for he must determine how and when reconditioning must be conducted, in keeping with accepted scientific practice.

#### IMPORTANT

Send changes of address to 30  
No. Michigan Ave., Chicago 2,  
Illinois. Changes received after  
the 1st of the month cannot go  
into effect until the following  
month.

## FILARIASIS: PUBLIC HEALTH ASPECTS AND PROGNOSIS

JAMES W. FIROVED, LT. COM.  
MC-V (S) USNR\*

The far-reaching activities of the present war have brought our troops into close contact with serious menaces to public health which not improbably could invade our own continental limits. Physicians in civilian practice have shown alarm over this possibility. Filariasis, although known in the United States, is generally considered to be a disease of the tropics. It is endemic in Polynesia (particularly the Samoan group, the Fiji and Wallis Islands), Dutch Indies, South China, Indo-China, the Mediterranean coast of Spain, northeast coast of Australia, Central America, north-eastern section of South America, parts of Argentina, and the Greater and Lesser Antilles. Physicians usually associate the term "filariasis" with the gruesome text book pictures of elephantiasis. Many of our troops have developed clinical manifestations of filarial origin and have been evacuated to the United States. We are confronted with a question of twofold nature: will the returned men who have filariasis cause to occur endemic areas of the disease in the United States; and what is the ultimate prognosis for these infected persons?

Filariasis is a disease of the lymphatic system of the body, caused by a worm, the most common being *Wuchereria bancrofti*. The disease is transmitted by the mosquito, the common species being the *Culex fatigans* and the *Aedes scutellaris* and *aegypti*. The exposure time before the occurrence of signs and symptoms is usually several months, three to five or more. The clinical manifestations are both acute and chronic.

The cycle of the disease begins with the infected individual who harbors in his blood stream the microfilariae which are the offspring of the adult worm. The mosquito bites in order to obtain its blood meal and ingests blood and organisms into its body. Microfilariae are incapable of causing filariasis until they undergo

a period of development within the mosquito. The next time the mosquito bites, these developed organisms enter the body of the man. Male and female worms mate and the female survives to produce many frequent generations of microfilariae. The female worm lives for a variable period of time in the lymphatic tissues, usually a period of several months. The offspring, or microfilariae, migrate to the blood stream where they survive for only a day or so.

The common acute manifestations of filariasis (or "mumu") are lymphadenitis, retrograde or centrifugal lymphangitis following the adenitis, edema of the scrotum, funiculitis, and epididymo-orchitis. The order of frequency of involvement of tissues in the first attacks are reported to be: the spermatic cord, epididymus, and testicle, the upper extremities, thighs and popliteal spaces, upper eyelids, and the scrotal sac. The most disabling reactions occur in the scrotum. The less common acute manifestations are bouts of fever, urticaria, localized swelling of soft parts, and local pains. The reactions are recurrent over a variable period of time. The cause is considered to be due to the liberation of foreign protein from the disintegrating worm, essentially an allergic reaction. The individual becomes sensitized to the protein and the degree of reaction is proportional to the degree of sensitivity, as similarly observed in typhoid prophylaxis. The lymphadenitis usually involves the axillary, epitrochlear, or femoral and inguinal glands. The red streak does not necessarily confine itself to the route of a lymph channel but may exist as a reddened area overlying a swollen soft part. The reaction in deep-seated glands may not produce the appearance of a visible reaction. The constitutional symptoms are often mild and disappear in a few days. The treatment is symptomatic.

The chronic manifestations of filariasis are those due to lymphatic obstruction and stasis brought on by the interference with the lymph channels by worms or reparative proliferative processes. It is this stage of the disease that the characteristics of elephantiasis may become apparent to produce the massive enlargement of extremities or scrotum. This stage may develop anywhere from a few months to many years after infection. The more common residual phenomena are swelling of the spermatic cord,

\*The opinions or assertions contained herein are the private ones of the writer and are not to be construed as official or reflecting the views of the Navy Department or the Naval service at large.

epididymus, legs and forearms, and lymphadenopathy of varying degrees.

The psychiatric manifestations are of equal importance to the physical reactions of the disease in a good number of patients. They are of considerable prognostic importance. These disturbances become evident as anxiety, depression, apprehension, and various fixation complexes. The psychological environment of the men in overseas areas is one of a feeling of insecurity arising from their remoteness from home, their strange and often unfavorable living conditions, their awareness of the enemy, and their ignorance of native conditions and customs. They have seen the acute forms of filariasis in their companions and the chronic forms in the natives. Special attention to the genitals during examination stirs their apprehension. These men become fearsome of deformity and sexual disability and they almost invariably ask the medical officer about this. They have learned that treatment is unsatisfactory. The neurotic mechanism are touched off by these psycho-somatic effects. Psychiatric conditions such as reactive depression types, neurasthenia, and anxiety disturbances come to the foreground.

The question for consideration is whether or not there will occur endemic areas of filariasis in the United States when infected servicemen return to their homes. Mosquito borne diseases occur in the United States. Mosquitoes are prevalent in the United States. The men return from heavily infected regions to free areas. From our present knowledge of the disease as it occurs in the white man it does not seem likely that endemic areas will develop. Our people, as a whole, live under better sanitary conditions than do the natives of these foreign places. We screen our houses. We understand insect control procedures. We are very sensitive to the presence of the mosquito and use insect repellants and insecticides freely. The usual mosquitoes are quite domesticated and do not travel far from their place of origin. The life of a mosquito is thirty days, on an average. Returning infected men will be widely dispersed to their homes throughout the land. A single mosquito cannot ingest enough microfilariae to infect a locality, or conversely, the mosquito population would have to be quite large and heavily infected to transmit the disease. There are not

many areas in the United States, when considered as a whole, where mosquitoes are active beyond a period of a few weeks or months in the year. A non-infected person requires numerous bites over a relatively lengthy period of time to acquire and develop the disease. From this standpoint, a single infected person, or a few at least, could hardly seem capable of causing filariasis to spread. An area of filariasis occurs in Charleston, South Carolina, but the disease has not spread from there to other parts. In consideration of the infected person, himself, we have but to recall the life cycle of the worm. The adult female worms in the lymphatic tissues are continually dying. The microfilariae in the blood stream are incapable of producing the disease unless they pass through a developmental stage in the mosquito. One important fact to remember is that in most cases the clinical signs of the disease have ceased within a few weeks after the men have returned to the United States. Nevertheless, it is of great importance to realize that such a disease is capable of being introduced to various sections of our country and public health authorities should keep alert to this possibility.

The time is too early to venture a positive statement regarding the prognosis of the cases of filariasis. There appears to be a relationship between the frequency of recurrences of the acute manifestations and the development of the chronic stage. Elephantiasis in the Samoans has been known to occur after two acute episodes. In other cases, elephantiasis has developed in from three to fifteen years. Dickson, Huntington and Eichold, working in Samoa, have indicated that the incidence of elephantiasis in white persons is low and have reported that it has occurred only after fifteen years of recurrences of the acute phases. The prognosis in patients with scrotal pathology must be more guarded as the acute manifestations here are the most disabling. It is felt that with proper management the fear of permanent disability is not great. Some patients will progress into the chronic stage of filariasis but the number will no doubt be small in proportion to the number of men who have acquired the disease. The prognosis in those cases with psychiatric manifestations is uncertain. Psychotherapy is difficult.

A note of warning is considered appropriate towards the surgical treatment of the cases showing lymphatic obstruction. Surgery has been resorted to in certain cases with satisfactory results. The question to bear in mind when surgery is contemplated is, will surgery decrease the limited available lymphatic circulation by trauma or resultant proliferative changes, and will surgery likely open fresh lymph channels through which living adult worms may travel to new locations?

Conclusion: Serious public health menaces have arisen from the introduction of our armed forces into areas harboring filariasis, the introduction of which into the United States might cause to occur endemic areas. In the light of present knowledge this danger does not seem to be of great importance in materializing. The prognosis of persons infected with filariasis appears to be generally good, but it is uncertain especially in cases having scrotal pathology and psychiatric disturbances. We have potentially, at least, public health problems which may become psychiatric problems.

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#### THE DIAGNOSIS AND TREATMENT OF ANO-RECTAL DISEASES IN A STATION HOSPITAL

E. H. QUANDT, MAJOR, M.C., A.U.S.

Ano-rectal diseases in the Army are no different than they are in civilian life except that a soldier with disturbing symptoms is rarely treated in a dispensary or office but is always hospitalized. Upon admission to the surgical service with ano-rectal complaints the usual careful history is taken and a physical examination is done. That evening an S. S. enema is given and repeated the next morning. After a mild sedative the patient is taken to the operating room and a proctoscopic examination performed in the Kraske position. An accurate diagnosis is established and the findings are recorded by the examiner on the Proctoscopic Examination Form

55 E-6. After this the appropriate operation is scheduled, usually for the next day. The routine cleansing enemas are again given and a hypodermic of morphine and atrophine administered an hour preoperative.

Between April 1st, 1941 and the same date 1942, three hundred and ten (310) ano-rectal patients were treated surgically. During this period 330 proctoscopic and sigmoidoscopic examinations, 253 haemorrhoidectomies, 44 fissurectomies, 13 fistulectomies and 15 incisions and drainages were performed. Eight (8) cases of internal haemorrhoids were treated by the injection with 5% quinine and urea hydrochloride. The ano-rectal cases, exclusive of pilonidal sinuses and cysts, therefore, represent approximately 5% of all surgical service patients. (See table, top of page 100.)

Haemorrhoids, of course, account for the majority of ano-rectal diseases of which there were 261 cases. Internal and external haemorrhoids combined existed in 124 cases; internal haemorrhoids alone in 61; external thrombosed haemorrhoids alone in 40 and simple external haemorrhoids alone in 13 patients. Anal fissure together with combined internal and external piles were diagnosed in 23 and uncomplicated anal fissure in 21 or a total of 44 cases with anal fissure. Fistula in ano was found in 13, periproctical abscess in 15 and pruritus ani in 6 patients. A miscellaneous group of 21 patients were found to be suffering from the following ailments: 10 cases of proctitis and/or colitis, 1 case of multiple polyposis of the rectum and colon, 1 case of diverticulitis, 3 cases with rectal polyps, condylomata and anal verruca in 4 cases, foreign body in 1 case and 1 case of inoperative carcinoma of the lower rectum in a soldier 20 years of age.

The chief complaints for ano-rectal disease are simple and usually easily ascertained. The above chart reveals that uncomplicated internal haemorrhoids have bleeding as their one principle complaint in 62% of the cases whereas in simple external thrombosed piles pain is the one complaint in 72% of the patients. In cases of anal fissure with haemorrhoids 100% of the patients complained of both pain and bleeding. When a soldier tells you that he has a pain in his rectum during and for some time after stool, look for an anal fissure at 12 o'clock if you examine him in the Kraske position.

Diagnosis	No. of Cases	Post. Op. Hosp. days	Chief Symptoms				Bleeding & Protrusion
			Pain	Bleeding	Pain & Bleeding	Protrusion	
Haemorrhoids .....	261	12.5	40%	35%		6%	19%
Internal and Ext. Combined .....	124	17	15%	62%		3%	20%
Internal (only) .....	61	11.2	72%	18%	10%		
Ext. Thrombosed (only) .....	40	8.8	Pain & Itching				
External (only) .....	13	9	100%				
Fissure in Ano & Haemorrhoids Combined ..	23	17					
Fissure in Ano (only) .....	21	10.4			100%		
Fissure in Ano .....	13	26	50%	20%	30%		
Peri Proctic Abscess .....	15	11.2	Pain & Drainage				
Pruritus Ani .....	6		100%				
Miscellaneous .....	21						

Chart shows the common ano-rectal diseases, post operative morbidity and the frequency of the common symptoms.

The operative correction for internal haemorrhoids consists of dilating the anal sphincter moderately to admit two or three fingers. The pile is then grasped proximally and distally with an Allis forceps and a plain catgut stitch placed deep in the rectal mucosa proximal to the proximal forceps. Ligation of this stitch reduces the bleeding after which the mucosa is incised around the haemorrhoidal area and extended external to the sphincter to include an area of anal skin. After separating the mucosa bluntly from the base of the pile, the pedicle is clamped with a Kocher forceps and excised. The stump is then ligated with plain catgut and the mucosa closed over the defect with interrupted catgut stitches to the white line. The external skin defect is not closed. Three haemorrhoidal areas are usually removed. A vaseline gauze wick is placed in the anal canal for 24 hours. After this daily hot sitz baths are started and daily finger dilatations performed. Sedatives are seldom required after the second postoperative day.

Anal fissures are treated by simple excision of the cicatricial defect down to the normal sphincter muscle and treated in other respects the same as haemorrhoidectomies. The cases of fistula in ano are laid wide open, the fistulous tract and scar completely excised, the wound packed with vaseline gauze and allowed to granulate.

In the Army time lost from duty is closely watched and the time spent post-operatively in the hospital is therefore the period of morbidity. A check of the above chart shows that the morbidity for all haemorrhoidectomies is 12.5 days, for internal and external combined piles 17 days, for internal piles 11.2 days, for external thrombosed piles 8.8 days and for simple external piles 9 days. Fistula in ano cases required an average period of 26 days of post-operative care. Of all the operative anorectal cases 15 patients spent

30 or more days in the hospital. The longest period was 65 days; a case of fistula in ano with stricture.

Complications following surgical treatment may be summed up briefly. Nine haemorrhoidectomy cases were re-operated for post-operative development of anal stricture or granulations. This consisted in cautery of granulations or a simple dilatation under anesthesia. One case had two minor secondary plastic operations in order to relieve stricture and scarring. One case had two post-operative anal dilatations and again constricted so that only pencil sized stools were possible. Finally a complete excision of the anal canal was done with the removal of all evidence of scar tissue, the amputation of about an inch of the anal canal and repaired by a plastic procedure as follows: A circular incision was made just distal to the anal ring of stricture. The dissection was then carried past the sphincter muscle and the rectum mobilized for a distance of about two and one half inches and the distal stricture portions amputated. The mucosal edge was then anchored with interrupted chromic stitches to the inner border of the anal sphincter and the mobilized undercut external skin edge brought over the sphincter and anchored with each respective mucosal stitch to the mucosal edge. An excellent cosmetic and functional result was obtained. During the healing stage the healing edges were kept scrupulously clean by daily cleansing, hot sitz baths and sulfanilamide powder dusting. Three cases developed post-operative haemorrhages, two of which were severe and required two and three transfusions respectively. The latter on the 4th post-operative day after haemorrhoidectomy, lost enough blood during the night to go into severe shock. He was given a pint of plasma immediately upon discovery followed within two hours by two trans-

fusions and a third later in the day. Although a complete anoscopic examination of the wound was made in the operating room no bleeding point was established and the examiner definitely felt that the blood came from a higher level. Later gastro-intestinal x-ray series and barium enema offered no diagnostic information.

The severe cases of colitis, the case of diverticulitis, the case of multiple polyposis and the case of carcinoma were transferred to a general hospital for disposition and treatment. Three hundred and fifteen (315) operative procedures required anesthesia were handled as follows: Nitrous oxide and ether 4, local ethylchloride 5, intravenous sodium pentothal 40, sacral 58, spinal 102 and local 106.

#### CONCLUSIONS

The diagnostic findings in 310 consecutive ano-rectal cases are recorded.

All haemorrhoidectomy cases were returned to duty after an average of 12.5 days of post-operative hospitalization.

Three and one half percent of the haemorrhoidectomy cases developed surgical complications requiring further surgical intervention.

Pre-operative proctoscopic examination for every ano-rectal surgical candidate is recommended.

Careful post-operative care in the ward is a necessity if the patient is to have a comfortable post-operative convalescence and an early return to duty.

Department of Surgery  
Station Hospital  
Camp Grant, Illinois

#### NEW VACCINE FOR POLIOMYELITIS REPORTED BY THREE CHICAGOANS

The Results With Mice Offer Encouragement  
As To Its Usefulness; Virus Inactivated  
By New Ultraviolet Irradiation Technic

A new vaccine for infantile paralysis is reported in *The Journal of the American Medical Association* for July 8, and results obtained in mice seem to offer encouragement as to its usefulness. The poliomyelitis virus is inactivated with a new technic of ultraviolet irradiation developed by a group of Chicago investigators.

Albert Milzer, Ph.D.; Franz Oppenheimer, Ph.D., and Sidney O. Levinson, M.D., Chicago, report that "Mice immunized with three doses

of the irradiated poliomyelitis vaccine developed significant resistance to intracerebral [into the brain] inoculation and also specific serum neutralizing antibodies. The irradiated poliomyelitis vaccine exhibited no significant loss of potency after four and a half months storage at 3 C."

The new technic was first announced in *The Journal* of June 24. By it bacteria and viruses are completely killed or inactivated in less than one second by exposing them on continuously flowing thin films to ultraviolet rays from a newly developed lamp.

"The present paper," the three investigators say, "is a preliminary report on the preparation and antigenic studies of a completely inactivated vaccine prepared from the mouse adapted Lansing strain of poliomyelitis virus which not only evokes the formation of specific neutralizing antibodies in immunized mice but also confers a high degree of protection against subsequent intracerebral inoculation. . . ."

"Although there are a few publications of the effectiveness of ultraviolet irradiation in destroying the poliomyelitis virus, to our knowledge no one has made antigenicity studies of irradiated poliomyelitis vaccines. It has been shown repeatedly that monkeys vaccinated with various completely inactivated poliomyelitis virus preparations develop little or no immunity, while active virus vaccines may stimulate immunity but are too dangerous for human use. . . ."

Swiss mice were used by the three men. They say that "The presence of neutralizing antibodies against the Lansing strain . . . in undiluted pooled serums obtained from selected vaccinated mice was demonstrated as early as one week after a single dose of vaccine. One week after the second and third doses of vaccine the antibody titer [measurement] had increased at least tenfold. . . ."

Our principal task now is to extend tuberculosis control activities so as to reach the greatest number of workers and their families in the shortest possible time, making full use of all private and public resources. With energetic use and concerted action, the final eradication of tuberculosis from the United States is well within our grasp. H. E. Hilleboe, M.D. and D. M. Gould, M.D., U.S.P.H.S., *Jour. A.M.A.*, May 27, 1944.

# House of Delegates

**NOTE:** For the complete minutes on the first session of the House of Delegates please refer to your July issue of *The Journal*, page 19.

## SECOND SESSION

THURSDAY MORNING, MAY 18, 1944

The Thursday morning session was called to order at 9:45 A.M., by the Acting President, Dr. Robert S. Berghoff, Chicago.

**THE ACTING PRESIDENT:** The first order of business is the report of the Credentials Committee.

**DR. E. S. HAMILTON, Kankakee:** The Credentials Committee has certified 49 downstate delegates, 42 from Chicago Medical Society and 15 members of the Council, a total of 106. I move you that this constitute the official attendance of the second meeting of the House of Delegates. (Motion seconded by Dr. Harlan English, Danville, and carried).

**THE ACTING PRESIDENT:** The next order of business is the roll call by the Secretary.

**DR. E. S. HAMILTON, Kankakee:** I move you that the attendance slips constitute the official roll call. (Motion seconded by Dr. Robert H. Hayes, Chicago, and carried).

**THE ACTING PRESIDENT:** I would ask the House of Delegates to allow three or four minutes to William S. Keller, Senior Surgeon, U. S. Public Health Service, who has a message for us from the Government.

**COLONEL KELLER:** In order to clarify Dr. Berghoff's statement I want you to know that I have succeeded Dr. John Coulter in the Sixth Service Command as regional medical officer. You probably know that the emergency medical service of the O.C.D. is undergoing a transition. We are asking that the emergency medical service be maintained as well as other services for the duration. We are not doing any promotional work. I believe that we as a

group from organized medicine should think of and support the emergency medical service. The public has been educated throughout this state to the emergency medical service. They are conscious at the present time of the emergency medical service. Unfortunately organized medicine has a way of disregarding things that are in the future and letting things pass out of our hands, and then subsequently doing everything in our power to rectify our mistakes. It seems to me that we as the medical profession should gradually, if possible, in our respective local communities absorb the emergency medical service. I would not say to have an extra committee, but to see that the emergency medical services are placed in the hands of one of the committees in the local county medical societies. This is a department of the government which is recognized as a department of welfare, a department of public service. I am asking this for two reasons, not only that organized medicine retain control of the emergency medical service instead of turning it over to the politicians or to social agencies in the community and let them conduct it. We also want to serve the communities. There is equipment in thirty-eight communities in the state of Illinois, so when the time comes when the government sees fit to withdraw this equipment, if it is in the proper hands, the doctors and the hospitals, it may think twice before withdrawing it. We would not wish to see this equipment withdrawn from a community, returned to Washington and then sold at twenty-five cents on the dollar to substandard groups, and then have these substandard groups advertise that they have special emergency equipment of the O.C.D., as they probably will. I have talked to Dr. Fishbein and he said he thought it was a good idea. He was going to talk to the post-war planning committee. Gentlemen, I think that is too late. I think we should declare now for what may happen after hostilities cease. I think now is the time to give it some thought or forever hold our peace with regard to emergency medical service.

I am making that as a suggestion because I think it is plain good sense. Otherwise in a year or two years from now some of you delegates will return

to us and say the government is doing this, the politicians are doing this, and someone else is in on this. I am not asking for a vote. I want to place it in the hands of your regional committee who will consider it and emphasize it again just because this transition is taking place in the office of civilian defense. Let us not as physicians allow this to slip out of our hands. Let us dictate the emergency medical service from our respective medical organizations.

DR. G. HENRY MUNDT, Chicago: I move that these suggestions be referred to the Council of the Illinois State Medical Society with the request that they act in any way they see fit. (Motion seconded by Dr. W. S. Bougher, Chicago, and carried).

THE ACTING PRESIDENT: The next order of business is the reading and approval of the minutes of the first session of the House. (The minutes were read by the Secretary).

DR. ROBERT H. HAYES: I move that the minutes be approved. (Motion seconded by Dr. Harlan English, Danville, and carried).

THE ACTING PRESIDENT: The next order of business is the election of officers. I will entertain nominations for President-Elect.

DR. JAMES H. HUTTON, Chicago: Once in a blue moon we discover a man who is wealthy and intellectual, who has brains as well as money, and having tried him out for some years we know that he is all right. I take great pleasure in offering the name of Dr. Robert S. Berghoff for President-Elect. (Motion seconded by Dr. Robert H. Hayes, Chicago, and carried).

THE SECRETARY: Are there other nominations?

DR. J. J. MOORE, Chicago: I move that the nominations be closed and the Secretary instructed to cast the affirmative ballot for Dr. Berghoff as President-elect. (Motion seconded by Dr. C. E. Wilkinson, Danville, and carried).

THE SECRETARY: I take pleasure in casting the ballot for Dr. Robert S. Berghoff for the office of President-Elect.

DR. BERGHOFF: I appreciate the honor, but I am confused. I could not feel that these statements were directed to me at all, — statements about intellect and worldly goods. I am deeply grateful to Dr. Hutton and to you gentlemen for the confidence you have placed in me and for asking me to serve as president-elect for the coming year and particularly so since it was my privilege to carry on the duties and obligations of the president who had died. I, in turn, will pledge you my very best effort and you may rest assured that whatever I have in me I will give to the Illinois State Medical Society.

THE ACTING PRESIDENT: Nominations are in order for First Vice-President.

DR. S. D. ZAPH, Chicago: I wish to place in nomination a man who through his efforts, direction and coordination and the various committees as well as the scientific and commercial exhibits, was able to present the successful session we have had this year. I deem it an honor to place in nomination the name

of Dr. Harry M. Hedge, Chicago, for First Vice-President. (Motion seconded by Dr. W. S. Bougher, Chicago).

DR. R. K. PACKARD, Chicago: I move that the nominations be closed and the Secretary instructed to cast the affirmative ballot for Dr. Hedge. (Motion seconded by Dr. Mather Pfeiffenberger, Alton, and carried).

THE SECRETARY: I take pleasure in casting the affirmative ballot for Dr. Hedge for First Vice-President.

THE ACTING PRESIDENT: Nominations are in order for Second Vice-President.

DR. J. S. TEMPLETON, Pinckneyville: I wish to place in nomination W. C. Blaine of Tuscola, a man who has long been a member of the Society, who has labored unceasingly for our good, and who is capable to assist in any way that he can with the work of this Society for the coming year. (Motion seconded by Dr. Robert Hayes, Chicago).

DR. T. B. WILLIAMSON, Mt. Vernon: I move that the nominations be closed and the Secretary instructed to cast the affirmative ballot for Dr. Blaine. (Motion seconded by W. E. Kittler, Rochelle, and carried).

The ballot was cast and the Chair declared Dr. Blaine elected.

THE ACTING PRESIDENT: Nominations are in order for Secretary-Treasurer.

DR. G. C. OTRICH, Belleville: I wish to nominate our present Secretary-Treasurer, Dr. Harold M. Camp. (Motion seconded by Dr. J. J. Moore, Chicago).

DR. W. E. KITTLER, Rochelle: I move that the nominations be closed and that the Acting President be instructed to cast the affirmative ballot for Dr. Camp. (Motion seconded by Dr. Mather Pfeiffenberger, Alton, and carried).

The ballot was cast and the Chair declared Dr. Camp elected.

DR. CAMP: Mr. President and Members of the House of Delegates: For the twenty-first time I want to thank you and I want to assure you that I will in every way possible carry on for another year.

THE ACTING PRESIDENT: The next order of business is the election of Councilors for a term of three years. In the First District, L. J. Hughes is retiring.

DR. R. C. HETHERINGTON, Geneva: I wish to nominate L. J. Hughes to succeed himself. (Seconded by Dr. J. W. Long, Robinson).

DR. W. E. KITTLER: I move that the nominations be closed and the Secretary instructed to cast the affirmative ballot for Dr. L. J. Hughes. (Seconded by Dr. J. J. Moore, Chicago, and carried).

The ballot was cast and the Chair declared Dr. Hughes elected.

THE ACTING PRESIDENT: Nominations are in order for Councilor for the Second District, Dr. E. C. Cook retiring.

DR. J. H. EDGCOMB, Ottawa: I would like to nominate Dr. E. C. Cook to succeed himself. (Seconded by Dr. W. E. Kittler, Rochelle).

DR. I. H. NEECE, Decatur: I move that the nominations be closed and the Secretary instructed to cast the affirmative ballot for Dr. Cook. (Motion seconded by Dr. Robert Hayes, Chicago, and carried).

The ballot was cast and the Chair declared Dr. Cook elected.

THE ACTING PRESIDENT: Nominations are in order for Councilor from the Third District, Dr. Percy E. Hopkins retiring.

DR. J. L. ALBRIGHT, Chicago: I wish to nominate Dr. Percy E. Hopkins to succeed himself. (Motion seconded by Dr. J. J. Moore, Chicago).

DR. F. O. FREDRICKSON, Chicago: I move that the nominations be closed and the Secretary instructed to cast the affirmative ballot for Dr. Hopkins. (Seconded by Dr. J. L. Albright, Chicago, and carried).

The ballot was cast and the Chair declared Dr. Hopkins elected.

THE ACTING PRESIDENT: Nominations are in order for a Councilor from the Third District to fill out the unexpired term of two years of Dr. John S. Nagel.

DR. G. E. JOHNSON, Chicago: I wish to nominate Dr. Oscar Hawkinson to take Dr. Nagel's place for two years. (Seconded by Dr. R. K. Packard, Chicago).

DR. ROBERT H. HAYES, Chicago: I move that the nominations be closed and the Secretary instructed to cast the affirmative ballot for Dr. Hawkinson. (Motion seconded by Dr. J. J. Moore, Chicago, and carried).

The ballot was cast and the Chair declared Dr. Hawkinson elected.

THE ACTING PRESIDENT: Nominations are in order for Councilor from the Eleventh District, Dr. E. S. Hamilton retiring.

DR. A. L. NICKERSON, Kankakee: I would like to nominate Dr. E. S. Hamilton to succeed himself. (Seconded by Dr. W. E. Kittler, Rochelle).

DR. C. E. WILKINSON, Danville: I move that the nominations be closed and the Secretary instructed to cast the affirmative ballot for Dr. Hamilton. (Motion seconded by Dr. A. L. Nickerson, Kankakee, and carried).

The ballot was cast and the Chair declared Dr. Hamilton elected.

THE ACTING PRESIDENT: Nominations are in order for delegates to the American Medical Association, four to be elected from Cook County and one from downstate.

DR. O. W. REST, Chicago: I would like to nominate Dr. Charles H. Phifer to succeed himself.

DR. ROBERT H. HAYES, Chicago: I would like to nominate J. J. Pflock to succeed himself.

DR. OSCAR HAWKINSON, Chicago: I would like to nominate R. K. Packard to succeed himself.

DR. W. S. BOUGHER, Chicago: I would like to nominate G. Henry Mundt to succeed himself.

DR. J. J. MOORE, Chicago: I move that the nominations be closed and the Secretary instructed to cast the affirmative ballot for these four nominees. (Motion seconded by Dr. Robert H. Hayes, Chicago, and carried).

The ballot was cast and the Chair declared them elected.

THE ACTING PRESIDENT: There is one downstate delegate to be elected.

DR. W. E. KITTLER, Rochelle: I would like to nominate E. S. Hamilton, Kankakee, to succeed himself. (Seconded by Dr. Mather Pfeiffenberger, Alton).

DR. C. E. WILKINSON, Danville: I move that the nominations be closed and the Secretary instructed to cast the affirmative ballot for Dr. Hamilton. (Motion seconded by Dr. W. E. Kittler, Rochelle, and carried).

The ballot was cast and the Chair declared Dr. Hamilton elected.

THE ACTING PRESIDENT: Nominations are in order for alternate delegates to the American Medical Association, five to be elected from Cook County.

DR. A. L. WILLIAMS, Chicago: I would like to nominate Dr. H. K. Scatlift to take Dr. Post's place.

DR. CHARLES ROTH, Chicago: I would like to nominate Dr. Gustav Kaufman.

DR. J. J. PFLOCK, Chicago: I would like to nominate Dr. Fred Muller to succeed himself.

DR. F. O. FREDRICKSON, Chicago: I would like to nominate Dr. D. B. Pond.

DR. CHARLES ROTH, Chicago: I would like to nominate Dr. F. L. Brown.

DR. OSCAR HAWKINSON, Chicago: I move that the nominations be closed and the Secretary instructed to cast the affirmative ballot for these nominees. (Motion seconded by Dr. J. J. Moore, Chicago, and carried).

The ballot was cast and the Chair declared the nominees elected as alternate delegates from Cook County.

THE ACTING PRESIDENT: There is one state alternate to be elected, to succeed Dr. Bernard Klein.

DR. E. S. HAMILTON, Kankakee: I nominate Dr. Bernard Klein to succeed himself. (Motion seconded by Dr. Mather Pfeiffenberger, Alton).

DR. J. J. MOORE, Chicago: I move that the nominations be closed and the Secretary instructed to cast the affirmative ballot for Dr. Klein. (Seconded by Dr. E. S. Hamilton, Kankakee, and carried).

The ballot was cast and the Chair declared Dr. Klein elected.

THE ACTING PRESIDENT: The next order of business is the election of Standing Committees. Nominations are in order for the Committee on Public Relations, three to be elected for one year.

THE SECRETARY: There is a resolution which is to be introduced which if approved will nullify several of these committees. I think it would be well to hold this in abeyance until after action is taken on these various resolutions.

DR. E. S. HAMILTON, Kankakee: I move that this part of the election be postponed until the latter part of the morning. (Motion seconded by Dr. W. S. Bougher, Chicago, and carried).

DR. N. S. DAVIS III, Chicago: I move that the reference committee on the constitution and by-laws committee report be asked to give their report and then proceed with the regular order of business. (Motion seconded by Dr. A. B. Owen, Rockford).

DR. G. HENRY MUNDT, Chicago: As much as I like and admire Dr. N. S. Davis, I disagree with him. I think we should have the reports of the various reference committees before we go into this election. There may be something brought in the reference committee reports that will cause us to make a change. It is only fair that we hear these reference committees before we hear the report of the committee on constitution and by-laws. (The motion made by Dr. Davis was lost on a rising vote).

THE ACTING PRESIDENT: We shall proceed with the election of the Committee on Medical Education and Hospitals, one to be elected for three years, Dr. W. R. Marshall of Clinton retiring.

DR. I. H. NEECE, Decatur: I nominate Dr. W. R. Marshall to succeed himself. (Seconded by Dr. T. B. Williamson, Mt. Vernon).

DR. C. E. WILKINSON, Danville: I move that the nominations be closed and the Secretary instructed to cast the affirmative ballot for Dr. Marshall. (Seconded by Dr. E. E. Davis, Avon, and carried).

The ballot was cast and the Chair declared Dr. Marshall elected.

THE ACTING PRESIDENT: Nominations are in order for the Committee on Medical Benevolence, one member being elected each year for three years. Dr. C. H. Hulick is retiring. One member is to be elected for one year to serve the unexpired term of Dr. John S. Nagel.

DR. L. O. FRECH, Decatur: I would like to nominate Dr. C. H. Hulick to succeed himself for three years. (Seconded by Dr. C. E. Wilkinson, Danville).

DR. J. H. LONG, Robinson: I move that the nominations be closed and the Secretary cast the affirmative ballot for Dr. Hulick. (Seconded by Dr. W. E. Kittler, Rochelle, and carried).

The ballot was cast and the Chair declared Dr. Hulick elected.

DR. FRED MULLER, Chicago: I wish to place in nomination the name of Dr. G. Henry Mundt to succeed Dr. Nagel. (Seconded by Dr. Percy Hopkins, Chicago).

DR. PERCY HOPKINS, Chicago: I move that the nominations be closed and the Secretary instructed to cast the affirmative ballot for Dr. Mundt. (Motion seconded by Dr. J. J. Moore, Chicago, and carried).

The ballot was cast and the Chair declared Dr. Mundt elected.

THE ACTING PRESIDENT: The next order of business is fixing the per capita assessment for 1945. It is now eight dollars.

DR. PERCY HOPKINS, Chicago: I wish to recommend to the House of Delegates that the per capita assessment remain at eight dollars for the coming year; in spite of the fact that quite a few of the men are in service whose dues have been remitted the financial condition of the Society is such that the Council felt warranted in making this recommendation to the House of Delegates. I so move. (Motion seconded by Dr. W. S. Bougher, Chicago, and carried).

THE SECRETARY: Since the war has been on it has been the custom of this House of Delegates each year to move that the dues of the members in service be remitted during their period of service.

DR. MATHER PFEIFFENBERGER, Alton: I so move. (Seconded by Dr. Andy Hall, Mt. Vernon, and carried).

DR. W. E. KITTLER, Mt. Vernon: Would it be proper to ask how many members of the Illinois State Medical Society are in service?

THE SECRETARY: I cannot give you the number specifically but we have approximately 4,000 Illinois Physicians in service. We have a complete file in the office but we did not check on it before the meeting. I can give you the information in a few days if you want it.

THE ACTING PRESIDENT: The next order of business is the selection of a meeting place for the 1945 annual meeting. Due to the uncertain conditions prevalent in wartime, it may be advisable to leave this for Council action as was done in 1944.

DR. S. D. ZAPH, Chicago: I so move. (Motion seconded by Dr. Mather Pfeifferberger, Alton, and carried).

THE ACTING PRESIDENT: The next order of business will be the reports of the Reference Committees, and action on same.

#### COMMITTEE ON REPORTS OF OFFICERS

Presented by Dr. James H. Hutton, Chicago

*The Secretary's Report.* — The Secretary gives us in his report a bird's-eye view of the status of our Society. He pictures also the embarrassment and irritation to which some of our younger members have been subjected. The Society is fortunate in having a man whose efficiency enables him to have intimate knowledge of the Society and its affairs. The Committee commends the Secretary and his report.

DR. HUTTON: I move the adoption of this portion of the report. (Motion seconded by Dr. C. H. Phifer, Chicago, and carried).

*Report of the Chairman of the Council.* — Dr. Hopkins' wide knowledge and careful attention to the details of the Society's problems is shown in his report. Difficult situations have been handled with a minimum of friction. The report gives a faint idea of the large amount of work transacted by the Council. The Chairman of the Council carries a very large responsibility and the Society is fortunate in having a man of Dr. Hopkins' ability who can give the time and energy necessary to fill this important office.

DR. HUTTON: I move the adoption of this portion of the report. (Motion seconded by Dr. L. O. Frech, Decatur, and carried).

*Report of the President-Elect.* — Dr. Coleman in his report has spoken briefly and to the point as is his wont. He has presented in an excellent way his broad knowledge of the Society's problems and of its relation to the public. The Society will be very ably represented with Dr. Coleman as President.

DR. HUTTON: I move the adoption of this portion of the report. (Motion seconded by Dr. L. O. Frech, Decatur, and carried).

Respectfully submitted,  
John H. Hutton, Chairman  
Frank Deneen  
L. S. Reavley  
Charles Drucek, Jr.

DR. HUTTON: I move the adoption of the report as a whole. (Motion seconded by Dr. Robert H. Hayes, Chicago, and carried).

#### REPORT OF COMMITTEE ON REPORTS OF COUNCILORS

Presented by Dr. L. O. Frech, Decatur

Your Committee wishes to include the reports of all councilors, in toto, for the sake of brevity and for the reason of saving repetition.

We feel that the councilors of the Illinois State Medical Society have, as individuals, been interested in the affairs of their districts; that they are alert to socio-medical conditions; that they endeavor to protect the welfare of the public as well as the profession and that they are sacrificing much time, as well as income, for furtherance of the happiness and peace of mind of their constituents.

The various reports would indicate that medicine is carrying on efficiently under the handicap of war, in the scientific phase; that medical service is being dispensed adequately at minimum levels; that the profession has summoned all its strength to carry on under a burden which is heavy to carry and probably in the future will be heavier.

Most of the reports carry an inference that the medico-economic phase is in an evolution which is tending to destroy the precepts of orthodox medicine as inherited by us and shows fear of a strong tendency in legislation to destroy our present system which has been responsible for the establishing of the most efficient medical service in the history of civilization.

Medical society programs have been held as usual and should be conducted in the future, even on a more intensive plane because of the increased demands upon the profession, from the point of more adequate service and because of the needs of unification and solidification in meeting the many advocated changes.

One councilor reports on a survey of his district, and he is to be commended for his interest in getting statistics for his own and for comparative information.

All reports show a decreasing complement of civilian physicians and point out the increasing burden

on these men. With demands for medical care increasing, due to more and easier public income, and more home care necessary because of crowded hospitals the medical profession must make some necessary adjustments in the application of medical care. Prevention and early application will assist materially in alleviating this condition. Also the elimination of all but urgent care will save wear and tear on the profession and assist in reducing the ranks of individual practitioners.

One report suggests that the greatest problem of the medical profession is that of furnishing adequate medical care to the public by those doctors remaining at home. Your committee agrees heartily with this contention, but wishes to express the idea that this can be done only by the preservation of our present, adequate system of medical practice.

The Washington Medical Bureau, recently established, can undoubtedly be of great service to the profession of this country by blocking, through education, that legislation which tends to destroy medical procedure as it relates to the public welfare but it can serve a materially better purpose by active guidance in passing legislation of a constructive nature whereby the public welfare, as well as the medical profession, will benefit. Such a bureau, to be effective, must naturally be more or less political in nature and while this may in a way be harmful to medicine it must function politically as this is the language of congress. Since the supreme court of the United States has declared the practice of medicine a business (this does not necessarily make it so) medicine will be forced to use business methods and procedures if the public and the physicians are going to maintain their status quo.

The Wagner-Murray-Dingell bill is mentioned in several reports and while it is thought to be dead as to its present contents it furnishes a beginning for other future legislation. If this direct method of socialization does not work other indirect methods will be tried. The proponents of socialized medicine, and they are many and strong, have too much sagacity to retire on a single defeat at this time.

Socialized medicine is much more apt to come through insidious extension of present programs than through enactments such as the Wagner-Murray-Dingell Bill.

Cooperation of the State Department of Public Health was mentioned in the report of one Cook County councilor. Your committee believes that never has cooperation from the State Department of Public Health been better than at present, also that organized medicine has never had more confidence in the State Health Department. This is as it should be and it is our earnest hope that such confidence and cooperation may always be existent.

Your committee has not thoroughly covered the reports of your councilors, but has satisfied itself with elaborating upon parts of each of the various reports thought to be most pertinent at this time.

Respectfully submitted,  
J. C. Redington

G. L. Kaufman  
L. O. Frech, Chairman

DR. FRECH: I move the adoption of this report as a whole. (Motion seconded by Dr. J. C. Redington, Galesburg).

A motion was made and duly seconded that two paragraphs be eliminated from the report.

THE ACTING PRESIDENT: Now we will vote on the motion as amended. The motion to accept the report with the two deletions is carried.

#### REPORT OF COMMITTEE ON REPORTS OF STANDING COMMITTEE

Presented by Dr. R. K. Packard, Chicago

*Report of Public Relations Committee.* — This report deals with disputes with insurance companies regarding bills rendered. The Committee has done effective work in educating the insurance companies. The Committee asks before you ask them to intercede, that you render a bill in conformity with the fee schedule of your community. They state that the courts have ruled that such bills are just and must be paid. They further suggest that when such bills are rendered and not paid, that you consult the Committee. The work of this Committee deserves your thanks and appreciation.

DR. PACKARD: I move the adoption of this portion of the report. (Motion seconded by Dr. Harlan English, Danville, and carried).

*Report of the Legislative Committee.* — This report deals primarily with the activities of the Committee in opposing the Wagner-Murray-Dingell Bill, and sets forth the necessity of continued public education. It further calls attention to the fact that the American people recognize the high standards of medical care, but that they are not able to budget for such medical care at this time.

Your reference committee desires to quote from this report:

"If the fundamental concepts of the Wagner Bill are to be long held in check, medicine and its allies must undertake an energetic campaign to inform the public what efforts have been made, and are being made, to enable the average citizen to better anticipate and provide for the cost of medical care. More than this, medicine must exercise vigorous and realistic leadership in this field in cooperation with industry, hospitals, insurance companies, and other private agencies. That the average citizen demands that he be assured access to competent medical service is a glowing tribute to the high standards of excellence which medical service in this country has achieved. He recognizes its worth and is willing to pay for it. He realizes, too, that although scientific research and a high degree of specialization have in recent years greatly added to the cost of medical care, that added cost buys something of inestimable value — better health and a greater increased life expectancy. But better health and an increased life expectancy do not materially improve his present ability to anticipate and provide for the cost of currently needed medical

care. He demands that someone help him to help himself now. The plain truth is that unless this is accomplished through the voluntary efforts of private agencies, he will ultimately call upon government to solve his problem for him. Medicine can best serve the people and itself by taking a leading role in solving the social and economic problems that now tempt many Americans to exchange liberty and opportunity for the promised land of security."

Your Reference Committee endorses the statements set forth in the above quotation and hopes that the House of Delegates concur in the urgent necessity for leadership in meeting these problems.

The Committee further discusses other bills now pending and asks the continued cooperation of the profession in opposing those bills.

Your Reference Committee believes that the Legislative Committee has attacked the problem intelligently and energetically.

DR. PACKARD: I move the adoption of that portion of the report. (Motion seconded by Dr. Robert H. Hayes, Chicago, and carried).

*Report of the Medico-Legal Committee.* — This Committee has continued its excellent work and reports that the number of suits filed is decreasing. Under a proposed change in the Constitution and By-Laws, this Committee will probably be dispensed with and a new committee named, for reasons that have already been set forth to the House of Delegates. The new committee will function much in the same capacity as the present committee. It is hoped that members of the profession will call on this committee when needed.

DR. PACKARD: I move the adoption of this portion of the report. (Motion seconded by Dr. J. J. Moore and carried).

*Report of the Committee on Medical Benevolence.* — This report justifiably gives high praise to the late Dr. Nagel, who worked hard for many years in the organization and development of the Benevolence Fund. After its creation, Dr. Nagel acted in the capacity of chairman, and gave much of his time to an investigation of all cases applying for help. In the report of the Committee, they state:

"For years Dr. Nagel had looked forward to the time when a permanent endowment fund could be created for medical benevolent purposes. It seems most fitting that some plan should be developed by this House of Delegates to start a permanent fund in memory of Dr. Nagel. There are no doubt many members of the State Medical Society who would gladly donate funds for such a worthy purpose, and perhaps other individuals outside the medical profession could be persuaded to do likewise. We have discussed this proposal with many members of this Society and have found a number who stated that they would be glad to support the project provided it met with the approval of the House of Delegates."

Your Reference Committee believes that serious consideration should be given to the above recommendation, and recommends that it be taken under

advisement and acted upon at the next annual meeting of the Society.

Again, the Reference Committee desires to pay high tribute to Dr. Nagel for his work and also to the other members of this Committee.

DR. PACKARD: I move the adoption of this portion of the report. (Motion seconded by Dr. J. J. Moore, Chicago, and carried).

Respectfully submitted,  
Rollo K. Packard, Chairman  
F. O. Fredrickson  
C. W. Carter  
C. M. Fleming

DR. PACKARD: I move the adoption of this report as a whole. (Motion seconded by Dr. E. H. Weld, Rockford, and carried).

## REPORT OF COMMITTEE ON REPORTS OF COUNCIL COMMITTEES

### Committee "A"

Presented by Dr. Mather Pfeiffenberger, Alton

*Report of Educational Committee.* — Your Committee has nothing to say but words of high commendation for the work done.

DR. PFEIFFENBERGER: I move the adoption of this portion of the report. (Motion seconded by Dr. Robert H. Hayes, Chicago, and carried).

*Report of Scientific Service Committee.* — Complete approval of the work done and especial attention to be called to the brochure issued by them on cardiac disease.

DR. PFEIFFENBERGER: I move the adoption of this portion of the report. (Motion seconded by Dr. J. W. Long, Robinson, and carried).

*Report of Post-Graduate Committee.* — Realizing the difficulty this committee has faced due to the absence of so many men in service, we think they have done a wonderful job even in having four conferences.

DR. PFEIFFENBERGER: I move the adoption of this portion of the report. (Motion seconded by Dr. Craig D. Butler, Oak Park, and carried).

*Report of the Medical Economics Committee.* — Attention, page 39, second column, No. 2, also on page 40, final paragraph. After due consideration your Committee feels that adoption of paying of fees by the Blue Cross organization for anesthetics, pathologic work and surgical fees would be a dangerous procedure which would ultimately lead to the dictation of fees to anesthetists, pathologists, surgeons and internists by any hospital insurance plan, and would recommend the deletion of these two paragraphs of the report.

DR. PFEIFFENBERGER: I move the adoption of this portion of the report. (Motion seconded by Dr. Oscar Hawkinson, Chicago, and carried).

*Report of the Fifty Year Club.* — Your Committee highly commends the good work of Andy Hall and his committee and hope it will continue as we are all potential candidates to join the ranks of these esteemed gentlemen of the profession.

DR. PFEIFFENBERGER: I move the adoption of this portion of the report. (Motion seconded by Dr. W. S. Bougher, Chicago, and carried).

Respectfully submitted,  
Mather Pfeiffenberger, Chairman  
S. D. Zaph  
T. B. Williamson  
A. M. Vaughn

DR. PFEIFFENBERGER: I move the adoption of the report as a whole. (Motion seconded by Dr. J. W. Long, Robinson, and carried).

### Committee "B"

Presented by Dr. G. Henry Mundt, Chicago

DR. MUNDT: I want to thank my committee for its work. Dr. Bitter certainly worked in beautifully. It was good that Dr. English and Dr. Bitter were on the committee because unfortunately Dr. Trostler was not there; otherwise, I would be working yet on this report because it is out of my field.

Your Committee notes that, from the report of the Advisory Committee, the Illinois Public Aid Commission now has charge of all types of medical care for all public aid recipients except that given directly by townships. From the report your Committee feels that the Commission did an excellent job of informing all Governmental units (1400 or more) of their legal responsibilities in Bulletin 50. In essence, Bulletin 50 informed supervisors of the laws making it mandatory for them to authorize and pay for medical care and hospitalization of any person who falls sick and is without funds.

From the report your Committee wishes to commend the Advisory Committee and the Commission for the appointment of a sub-committee on Ophthalmology and for the good work which they have done.

Your Committee recommends, after consideration of the Advisory Committee's supplemental report given in executive session Tuesday, the following:

1. That the House of Delegates disapprove (in principle) of contract practice between doctors and governmental units.
2. That the County Societies in which contract practice exists between doctors and governmental units be advised of such contracts, and be urged to have the doctors cease such practice as being not best for either the public or the profession.
3. That the Council be informed of such practice and that the Council advise the individual councilors to activate the local society in cleaning up the problem.

Your Committee feels that if the Councilor personally approaches the County Society, at a regular meeting, and explains to the members of a County Society that a contract exists within their county between a doctor and a Governmental unit, and that he has been instructed to explain to the Society that contract practice of this type is not for the best interest of the public or the profession, and further, that only a small minority, of the doctors of the county, are involved and that the County Society should go on

record as being opposed to such practice, and that they diligently try to eliminate such from within their boundaries, then the problem will be solved in the local County Society.

Your Committee wishes to commend the report and the supplemental report of the Committee on Medical Care of Public Assistance Recipients, and extend their thanks to these men for their untiring efforts in the solution of the many problems involved, in order to enhance the reputation of the profession.

Respectfully submitted,  
G. Henry Mundt, Chairman  
A. H. Bitter  
Harlan English  
I. S. Trostler

DR. MUNDT: I move the adoption of this report. (Motion seconded by Dr. L. O. Frech, Decatur, and carried).

#### Committee "C"

Presented by Dr. P. J. McDermott, Kewanee

*Report of Committee on Industrial Health.* — This is more or less pioneer work being done by this committee. They are to be congratulated on their extensive program and their educational work. They have given their efforts a great deal of publicity in the various county societies, medical bulletins and also in some lay publications. This committee has proven its worth and should be encouraged to carry on their program.

DR. McDERMOTT: I move the adoption of this portion of the report. (Motion seconded by Dr. J. J. Moore, Chicago, and carried).

*Report of Committee on Ethical Relations.* — This committee had one case to consider in which an expulsion was done in an irregular way and referred back to the county society by the Ethical Relations Committee to be tried according to the constitution and by-laws of the Illinois State Medical Society.

DR. McDERMOTT: I move the adoption of this portion of the report. (Motion seconded by Dr. W. S. Bougher, Chicago, and carried).

*Report of War Participation Committee.* — As they state in their report, their work is somewhat undefinable and of a flexible nature. They are, however, willing to carry on in whatever war participation work shall be assigned to them. This committee should be commended and continued on for the duration of the war.

DR. McDERMOTT: I move the adoption of this portion of the report. (Motion seconded by Dr. A. L. Nickerson, Kankakee, and carried).

*Report of Maternal Welfare Committee.* — This committee has presented a complete program of maternal welfare which we believe has been carried out in nearly all of the counties of the state. The suggestion that a permanent Maternal Welfare Committee, composed for the professional and lay groups to further the program of lay education should be encouraged. Also encourage post-graduate work and refresher courses among physicians. The recommendation of folders, "Advice to Expectant Mothers"

and "Abortions", prepared by this committee and furnished by the State Society, when requested, to all practicing physicians, should receive favorable action by the Council. This certainly is a worthwhile and important committee, and should receive the support of the entire state society.

DR. McDERMOTT: I move the adoption of this portion of the report. (Motion seconded by Dr. J. J. Moore, Chicago, and carried).

Respectfully submitted,  
P. J. McDermott, Chairman  
W. H. Newcomb  
J. J. Pflock  
O. W. Rest

DR. McDERMOTT: I move the adoption of the whole report. (Motion seconded by Dr. J. W. Long, Robinson, and carried).

#### Committee "D"

Presented by Dr. Oscar Hawkinson, Chicago

*Report of Advisory Committee on Rehabilitation.* — The work of this committee is highly commended. We note especially their efforts to keep the work in the hands of private physicians and out of Federal control. Study of the Peoria Plan is recommended.

DR. HAWKINSON: I move the adoption of this portion of the report. (Motion seconded by Dr. J. J. Moore, Chicago, and carried).

*Report of Committee on Archives.* — We are only now developing a spirit of tradition and feel that this committee is doing an important constructive service for posterity and also for those who are now active.

DR. HAWKINSON: I move the adoption of this portion of the report. (Motion seconded by Dr. C. O. Lane, West Frankfort, and carried).

*Report of Committee on Venereal Disease Control.* — The committee submits a report from the State Division of Venereal Disease Control, which is very interesting and instructive, and indicates a definite advance in the control of this scourge.

We believe the work would function more smoothly if this Department would cooperate more closely with local medical societies.

DR. HAWKINSON: I move the adoption of this portion of the report. (Motion seconded by Dr. Harlan English, Danville, and carried).

*Report of Committee on Cancer Control.* — Cancer control has become a prime objective of medical men throughout the land. In this great work the Woman's Field Army is taking a leading part. Lay education and social workers may and perhaps do stimulate physicians to increased interest. We highly commend the work of the Cancer Committee and note particularly the fine coordination between other groups working in this special field. The Committee feels that the profession should use more freely the diagnostic facilities provided and that more pains be taken to develop cancer clinics in our various hospitals.

We feel that the Cancer Committee should remain an autonomous group and that more publicity should be given to this work throughout the state.

DR. HAWKINSON: I move the adoption of this portion of the report. (Motion seconded by Dr. J. J. Pflock, Chicago, and carried).

Respectfully submitted,  
Oscar Hawkinson, Chairman  
Craig D. Butler  
E. E. Davis  
H. N. Fisher

DR. HAWKINSON: I move the adoption of the report as a whole. (Motion seconded by Dr. J. W. Long, Robinson, and carried).

# REPORT OF COMMITTEE ON REPORTS OF EDITOR, COMMITTEE ON SCIENTIFIC WORK, PRESIDENT OF THE WOMAN'S AUXILIARY, AND THE ADVISORY COMMITTEE TO THE A.M.A. COUNCIL ON MEDICAL SERVICE AND PUBLIC RELATIONS

Presented by Dr. A. B. Owen, Rockford

*Report of the Editor.* — The Editor and Editorial Board and Journal Committee are to be highly commended for the improvements which have been made in the Illinois Medical Journal for the past year. Their method of cooperation with the A.M.A. with respect to advertising material is commended, but we feel that the Journal should not accept for advertisement products that have been disapproved by the Council on Pharmacy and Chemistry of the A.M.A. The Editor and Journal Committee should be especially complimented on increasing the income from advertising so that now it more than covers the expenses of the Journal.

DR. OWEN: I move the adoption of this portion of the report. (Motion seconded by Dr. J. J. Moore, Chicago).

DR. PERCY HOPKINS, Chicago: By way of information to the House of Delegates the Journal has never so far as I know accepted advertising of products disapproved by the A.M.A. It still does accept advertising of some products which have not been offered for approval. I think there is a distinction to be made in that portion of the report.

DR. G. C. OTRICH, Belleville: I think there should be a change before we accept the report because the Editorial Board of the Journal has been taken to task by Dr. Fishbein who has criticized some of the advertising we have taken. He has criticized not only the Illinois Medical Journal but California and Western Medicine, and several other Journals. He has set himself up as an authority on all advertising that goes to all journals. I suggest that we delete all reference to the A.M.A.'s acceptance of advertising.

DR. N. S. DAVIS III, Chicago: May I add, "as has been their policy."

DR. HOPKINS: The reason I did not make a motion was because I did not think a motion was necessary. We will not accept advertising of products that have been disapproved. I thought there was a

chance that the House might misinterpret this statement.

DR. G. HENRY MUNDT, Chicago: One can place a period or a comma any place in a sentence. It is barely possible that a period might be placed after the word "commended". I think the Committee could change it very well and say they approve the advertising policy of the Illinois Medical Journal.

DR. OTRICH: I move that we delete this paragraph, beginning, "Their method of cooperation . . . of the A.M.A." (Motion seconded by Dr. G. Henry Mundt, Chicago).

DR. MUNDT: I think I shall withdraw my second. The Editor and the Editorial Board are to be heartily commended. I now move the adoption of this portion of the report. (Motion seconded by Dr. J. J. Moore, Chicago).

DR. N. S. DAVIS III, Chicago: I want to discuss that. I want to say that the report of the Editor described the manner in which they had been getting information from the A.M.A. in respect to advertising. This is in the report of the Editor and I think it should be commented upon and we should approve the policy. We are not taking things that have been turned down. The Committee might like to have approval or disapproval of this portion.

DR. OWEN: May I call on the Chairman of the Editorial Board for a few remarks.

DR. JAMES H. HUTTON, Chicago: The matter of accepting advertisements of products not endorsed by the Council on Pharmacy and Chemistry was debated in quite detail in the Editorial Board. There was a long discussion and a motion was made that we not accept things that were not endorsed. There are many things used by members of the Society that are not endorsed by the A.M.A. After discussion Dr. Gradle, who made the motion, withdrew it, because he uses things that are not Council accepted. He thought we should carry the advertisement if the manufacturer wished. It was then decided that each product would be accepted on the method that Council approval would be considered.

THE ACTING PRESIDENT: There is a motion before the House that the first portion of the report be approved. (Motion carried).

*Report of the President of the Woman's Auxiliary.* — The interest that the Auxiliary has taken in the Benevolence Fund is greatly appreciated, and their efforts to recruit for the student nurse Cadet Corps are especially to be commended. We hope that the Woman's Auxiliary in addition to taking group action on such measures as the Wagner-Murray-Dingell Bill will ask its members and supporters to write individually to their representatives in Congress.

We congratulate the ladies on the good work they have done in cooperation with the medical society in promoting good public relations and measures for raising the health standards of the state.

DR. OWEN: I move that this portion of the report be adopted. (Motion seconded by Dr. Frank P. Hammond, Chicago, and carried).

*Report of the Committee to Cooperate with the A.M.A. Council on Medical Service and Public Relations.* — This is a new committee which has as yet had little opportunity to do more than organize. Their report, therefore, is little more than a report of progress. We approve their comment on the Western Health League and the American Association of Physicians and Surgeons, and we feel that as the A.M.A. has now opened an office in Washington, D. C., there is no need for such other organizations. We suggest that the data for the state of Illinois concerning the needs and desires of its citizens for some form of Health Insurance may be obtained from the survey made by the National Physicians Committee. We are very much opposed to the Illinois State Medical Society going into the insurance business by offering any service plan.

DR. OWEN: I move the adoption of this portion of the report. (Motion seconded by Dr. Oscar Hawkinson, Chicago, and carried).

*Report of Committee on Exhibits.* — We appreciate the effort necessary to stage a convention during the war and we feel that the Committee on Arrangement should be complimented both on the quality of the scientific exhibits and the number of commercial exhibitors obtained.

Your Committee would further suggest that the Illinois State Medical Society consider the advisability of utilizing the facilities of some other large Chicago hotel for future conventions.

We especially approve of the awarding of recognition to the scientific exhibitors at the annual banquet; in this manner more attention is focused upon the multitudinous efforts necessary to produce a good exhibit.

DR. OWEN: I move the adoption of this portion of the report. (Motion seconded by Dr. J. J. Moore, Chicago, and carried).

Respectfully submitted,  
A. B. Owen, Chairman  
C. H. Hulick  
N. S. Davis III  
Albert Mickow

DR. OWEN: I move the adoption of the report as a whole. (Motion seconded by Dr. W. S. Bougher, and carried).

## REPORT OF COMMITTEE ON MISCELLANEOUS BUSINESS

Presented by Dr. Walter E. Kittler, Rochelle

Due to the splendid work done by all other committees nothing has been referred to this Committee up to the present time so we have no report to offer.

Respectfully submitted,  
Harold Miller  
Harold P. Sullivan  
R. K. Campbell  
Walter E. Kittler, Chairman

DR. WELD: I move the adoption of this report. (Motion seconded by Dr. W. S. Bougher, Chicago, and carried).

## REPORT OF COMMITTEE TO REVIEW REPORT OF THE COMMITTEE ON CONSTITUTION AND BY-LAWS

Presented by Dr. Robert H. Hayes, Chicago

DR. HAYES: For various reasons which have been presented to this House of Delegates it has been deemed advisable by legal opinion that certain changes in the by-laws and constitution should take place. Therefore, recommendations from the Committee on Constitution and By-Laws were made to the House of Delegates at the Tuesday meeting and these recommendations were turned over to your Reference Committee which makes the following report:

Mr. Chairman and members of the House of Delegates: Your committee to review the report of the Committee on Constitution and By-Laws makes the following report on suggested changes and additions to the Constitution and By-laws of the Illinois State Medical Society.

### Chapter IX. Committees.

#### Section 1. Standing Committees:

- A Committee on Scientific Work, to remain the same as stated in the by-laws.
- A Committee on Medical Service and Public Relations to replace the Committee on Medical Legislation and Public Relations.
- A Committee on Professional Demeanor to replace the Committee on Medico-Legal Matters.
- A Committee on Medical Education and Hospitals, to remain the same as stated in the by-laws.
- A Committee on Medical Benevolence, to remain the same as stated in the by-laws.
- A Committee on Medical Testimony, and such other committees as may be necessary.

Section 2. Committee on Scientific work, to remain as stated in by-laws.

Section 3. Committee on Medical Service and Public Relations, to read as follows:

The Committee on Medical Service and Public Relations shall consist of three members' and the president and secretary of the Society, ex-officio. Its activities shall be carried on under the supervision and direction of the Council. Members of this Committee shall be appointed by the Council.

This Committee shall have charge of all matters of public policy of interest to the Society and to the state at large. It shall be the duty of this committee to disseminate all information of interest to the medical profession, to keep both the medical profession and the residents of the State of Illinois informed of medical progress in both scientific and economic fields.

Each component county society shall appoint one member to act as advisor to this committee.

The committee shall make a report of its activities at each meeting of the Council, and to the House of Delegates at the annual meeting.

DR. HAYES: Your Committee recommends the adoption of this portion of the report. (Motion seconded by Dr. Charles H. Phifer, Chicago).

Section 4. The Committee on Professional Demeanor, to read as follows:

The Committee on Professional Demeanor shall consist of six members, three of whom shall reside in Cook County, and three elsewhere. They shall be elected by the House of Delegates, two to be elected each year to serve for three years. At the first election under this by-laws, two shall be elected for one year, two for two years and two for three years.

Each component society shall elect one member to serve as advisor to this committee.

It shall be the duty of the Committee on Professional Demeanor to elect a chairman on the last day of each annual session, such chairman to hold office until after the next annual meeting of this Society, or until his successor shall be elected. Said committee shall make such rules for the conduct of affairs entrusted to it.

The committee shall make a report of its activities to the Council each year at the January meeting, and to the House of Delegates at the annual meeting.

DR. HAYES: Your Committee recommends the adoption of this Section, and also I would ask that we delete the words of explanation. (Motion seconded by Dr. Charles H. Phifer, Chicago, and carried).

Section 5, formerly section 6, dealing with Medical Education and Hospitals, duties to remain the same as stated in the by-laws.

Section 6, formerly Section 7, dealing with the Medical Benevolence, duties to remain the same as stated in the by-laws.

Section 7, Committee on Medical Testimony, to read as follows:

The Committee on Medical Testimony shall be composed of eight members, two of whom shall be elected each year to serve for four years. At the first election under this by-law two shall be elected for one year, two for two years, two for three years and two for four years.

The House of Delegates at the first meeting during the annual meeting of this Society shall appoint a committee of five including the president of the Society, who shall act as chairman, the chairman of the Council, and three members of the House of Delegates, to be designated as the Nominating Committee. This committee shall present the names of candidates to be elected at the second meeting of the House of Delegates, as members of the Committee on Medical Testimony.

The Committee on Medical Testimony shall have authority to call in members who have been accused of giving improper testimony in court and commission proceedings, to secure transcripts of such court testimony, examine same and determine whether or not any fault exists, to censure and admonish, and if deemed advisable, to report to the State Department of Registration and Education any gross irregularities that may have arisen.

In cases of censure or admonition, the Committee on Medical Testimony shall submit its report to the Ethical Relations Committee of the component county society for whatever action is deemed advisable.

This committee shall make a report of its activities to the Council each year at the January meeting and to the House of Delegates at the annual meeting.

DR. HAYES: Your Committee recommends the adoption of this new section to the by-laws. (Motion seconded by Dr. R. K. Packard, Chicago).

DR. MUNDT: I am very jealous of the privileges of the individual members. I doubt very much whether this House of Delegates can authorize any committee to go as far as to report to the Department of Registration and Education on any gross irregularity. It should be at least passed on by the Council of the State Society before contact with the State authorities. I see no reason why any committee should have that privilege. I think there is very little doubt that if they recommend that such should be done that the Council will sustain them. I would ask the Chairman whether I can dictate a slight change, "to report to the Council of the Illinois State Medical Society and if recommended, that that be transmitted to the Department of Registration and Education".

DR. FRANK P. HAMMOND, Chicago: I further think this reference to the Department of Registration and Education should read, "that it be concurred in by the Council".

DR. MUNDT: The Council should make the contact, not the Committee. I leave it to the Committee to word it differently.

DR. HAYES: I might suggest that we add to that, "that the report of the Committee be submitted to the Council with the recommendation that it be submitted to the State Department of Registration and Education." I agree that it should be done, that this Committee report their findings to the State Council with the recommendation that this be referred to the Department of Registration and Education."

DR. MUNDT: If the Chairman says that he will alter that in line with the discussion I approve.

DR. W. E. KITTLER, Rochelle: I do not think it is necessary.

DR. G. C. OTRICH, Belleville: As Chairman of the Constitution and By-Laws Committee I think that is a very good suggestion. We are happy to have that added.

DR. MUNDT: As a matter of policy.

DR. HAYES: As chairman of that Reference Committee I am perfectly willing to add it.

DR. MUNDT: I move that the report of the Committee be amended as has been written in by the Chairman of the Committee. (Motion seconded by Dr. G. C. Otrich, Belleville, and carried).

DR. OSCAR HAWKINSON, Chicago: How does it read?

(Dr. Hayes reads the Section)

DR. MUNDT: I think that "gross irregularities"

is still in. It is not cleaned up but I think it can be approved.

DR. KITTLER: I think it changes the wording of the whole paragraph. If you leave in the words "deemed advisable".

DR. HAWKINSON: I like the words "gross irregularities". I think perhaps it is all right to confer with the Council but the Committee should not have the right to go to the Department of Registration and Education.

DR. HAYES: I would like to move the adoption of this section of the report as amended. (Motion seconded by J. J. Moore, Chicago, and carried).

DR. MUNDT: If you will read the next to the last paragraph of Section 7.

(Dr. Hayes read paragraph)

DR. MUNDT: I move that we reconsider the next to the last paragraph of Section 7. (Motion seconded by Dr. E. S. Hamilton, Kankakee).

DR. F. P. HAMMOND, Chicago: To reconsider a motion that has been voted upon you must have a two-thirds vote.

DR. MUNDT: I have no objection to this.

DR. HAMILTON: This is a debatable, argumentative thing. I am heartily in favor of its being reconsidered. I think all these things should be given a thorough hearing. I am in favor of Dr. Mundt's motion to reconsider this.

THE ACTING PRESIDENT: There is a motion to reconsider which calls for a two-thirds vote.

DR. C. H. PHIFER, Chicago: I would like to see this reconsidered and then I would like to see it tabled and some legal opinion obtained.

(The motion to reconsider was carried).

DR. PHIFER: I move that the whole Section 7 be tabled. (Motion seconded by Dr. G. Henry Mundt, Chicago, and carried).

DR. HAYES: Continuing with the report of the Reference Committee, the following amendment to Section I, Article VI, is proposed:

Article VI, Section I, the Council. The Board of Trustees, or, as in this Constitution and By-Laws designated the Council, whose duties are executive and judicial, shall consist of thirteen councilors elected by the House of Delegates, and three Councilors-at-large with the president, the president-elect, and the secretary ex-officio.

DR. HAYES: I move the adoption of this portion of the report. (Motion seconded by Dr. Andy Hall, and carried).

Chapter XI, Section 4. County Societies. Every registered physician holding the title of Doctor of Medicine, or its equivalent, who resides in the jurisdiction of a component society, and who is of good moral character and professional standing and a citizen of the United States, shall be eligible to membership. The component county society shall be the sole judge of the qualification of its members.

DR. HAYES: I move the adoption of this section. (Motion seconded by Dr. J. J. Moore, Chicago).

DR. O. W. REST, Chicago: What does "equivalent" mean?

DR. HAYES: In the original draft of the by-laws, there were many physicians who had not attended medical schools and who did not have diplomas. If those men had practised for three years they were eligible for license in the state of Illinois. Therefore, when original draft of the by-laws was written the words "or its equivalent" were included.

THE SECRETARY: There are some men practicing in Illinois who do not have an M.D. degree but they have the equivalent. It may have been received in some European school which is approved or some Canadian school that does not give the degree of M.D. but they have its equivalent. That is why this was left in when the revision of 1942 was made.

(Motion to adopt this section carried).

DR. HAYES: I move that the report as a whole be approved. (Motion seconded by Dr. J. W. Long, Robinson, and carried).

THE ACTING PRESIDENT: Now that the amendments to the by-laws have been adopted we shall finish the election. I call for nomination for members of the Committee on Professional Demeanor. There are six members to be elected, three from Cook County and three from downstate, two for one year, two for two years, and two for three years.

The following members of the Committee from Cook County were nominated: Drs. Oscar Hawkinson for one year, P. R. Blodgett for two years, and D. B. Pond for three years.

DR. R. H. HAYES, Chicago: I move that that nominations be closed and the secretary instructed to cast the affirmative ballot for these three nominees. (Motion seconded by Dr. Frank P. Hammond, Chicago, and carried).

The ballot was cast and the Chair declared the three members from Cook County elected.

The following members were nominated from downstate: Drs. Ralph McReynolds, Quincy, for three years, T. B. Williamson, Mt. Vernon, for two years, and A. L. Nickerson, Kankakee, for one year.

DR. MATHER PFEIFFENBERGER, Alton: I move that the nominations be closed and the Secretary instructed to cast the affirmative ballot for these three nominees. (Motion seconded by Dr. C. E. Wilkinson, Danville, and carried).

The ballot was cast and the Chair declared the three members from downstate elected.

THE ACTING PRESIDENT: We now come to the report of the Resolutions Committee.

DR. FRANK P. HAMMOND, Chicago: We have had presented to us eight resolutions.

1. *PREPAYMENT PLANS FOR HOSPITAL AND MEDICAL CARE.* (See Page 87)

DR. HAMMOND: One or two changes were made in the wording, for instance, the word "surgical" was changed to "medical", feeling that the word "medical" was all inclusive. Your Committee recommends the adoption of this resolution, and I so move. (Motion seconded by Dr. J. W. Long, Robinson).

DR. E. H. WELD, Rockford: How is this committee to be appointed to make it workable? I did not hear anything about that.

DR. R. K. PACKARD, Chicago: Inasmuch as I introduced the resolution I think that should be stated. I would recommend that the committee be appointed by the Chairman of the Council.

DR. G. HENRY MUNDT, Chicago: Will the Chairman read that portion relating to hospital plan, (Section read)

DR. MUNDT: I think you should say "study" instead of "cooperating".

DR. HAMMOND: There have been over 300,000 under the hospital plan in Alton, Peoria, Danville, Decatur and Chicago. That statistical data is available to this committee. It cannot be obtained anywhere else.

DR. L. O. FRECH, Decatur: May I ask for a word of explanation. Does this mean in any way that the medical plan developed will be involved in a hospital plan of pre-payment, that medicine will be tied in.

DR. HAMMOND: That will be entirely up to the committee and the Council.

DR. D. B. POND, Chicago: How many plans are there?

DR. HAMMOND: There are six in Illinois. Those six plans are operated by the Hospital Plan Commission in conjunction with private hospitals in Illinois and the American Hospital Association.

DR. E. S. HAMILTON, Kankakee: I heard no mention of other private insurance plans. Would it not be well to have it understood that this committee would be empowered to investigate all kinds of plans of medical insurance. There are three kinds of plans, one is a private insurance company, the second, a hospital plan, and the third, a state medical plan, such as the Michigan plan. If they are going to investigate let us make the investigation thorough, so that we can make the best plan. I do not believe I heard that mentioned. I know the Chairman of the Resolutions Committee is in a very embarrassing position because he is interested in the Chicago Hospital Plan. I do not want to presume that he purposely left that out.

DR. PACKARD: In offering this resolution certainly that was taken into consideration. It was put into the resolution that this committee should report back to the Council and should follow the instructions of the Council. I presume the Council could make an investigation. As the proponent of the resolution I think it should be done in that way. While I have been interested in the Plan for Hospital Care, I have frequently said to the Board of Directors that when any other plan could do a better job than we were doing we should go out of business. I think the same thing should apply to the formation of any medical service plan.

DR. HAMMOND: There was a motion made that the Council appoint a Committee.

DR. PACKARD: I will offer an amendment that the committee be appointed by the Chairman of the Council. (Motion seconded by Dr. J. J. Moore, Chicago, and carried).

The original motion as amended was then carried.

2. *LACK OF CONFIDENCE IN THE WAY THE AMERICAN MEDICAL ASSOCIATION HAS ADVANCED THE CAUSE OF AMERICAN MEDICINE BEFORE THE LEGISLATIVE BODIES OF THE NATION AND THE PUBLIC* (See Page 88)

DR. HAMMOND: Whereas the "whereas" merely expresses a "lack of confidence in the way that the American Medical Association has advanced the cause of American medicine before the legislative bodies of the nation and the American public", omitting any resolution toward correction of the alleged misconduct of the A.M.A. the Committee recommends that the resolution be tabled. I move that the recommendations of the Committee be concurred in. (Motion seconded by Dr. C. E. Wilkinson, Danville, and carried).

3. *MATERNAL AND INFANT CARE FOR WIVES AND INFANTS OF ENLISTED MEN* (From the Nebraska State Medical Association) (See Page 89)

4. From the Minnesota State Medical Association (See Page 90)

DR. HAMMOND: The Committee recommends that the resolutions presented by the Nebraska State Medical Association and the Minnesota State Medical Association be approved in principle and the Secretary be instructed to inform the respective State Association of our action.

I move that the recommendations of the Committee be concurred in. (Motion seconded by Dr. J. J. Moore, Chicago, and carried).

7. *H. R. 4663. A BILL TO TRANSFER TO THE FEDERAL SECURITY ADMINISTRATOR AND THE PUBLIC HEALTH SERVICE, RESPECTIVELY, THE FUNCTIONS OF THE SECRETARY OF LABOR AND THE CHILDREN'S BUREAU OF THE DEPARTMENT OF LABOR WITH RESPECT TO HEALTH, AND FOR OTHER PURPOSES.* (See Page 97)

DR. HAMMOND: The Committee recommends the adoption of this resolution, and I move that the recommendation of the Committee be concurred in. (Motion seconded by Dr. J. H. Hutton, Chicago).

DR. CHARLES H. PHIFER, Chicago: I think we have for years wanted a Department of Health in Washington. The transference to the Department of Public Health Service does not change the personnel. We have been transferred once or twice and still have the same personnel.

DR. KARL RIEGER, Freeport: This merely means that we approve the Wagner-Murray-Dingell bill. I think we should vote against this resolution.

DR. HUTTON: I feel as Dr. Phifer and the other members of the House of Delegates do that the personnel will not be changed. However, if the health activities are transferred to the Surgeon-General, they will not be under the domination of a man against the doctors. At the present time they are under the domination of Katherine Lenroot who has no idea of how men practice. I do not think that Dr. Martha Eliot or Dr. Edward Daily, who was at one time a member of our Jackson Park Branch, ever were engaged in private practice. Transference of this personnel from the Department of Labor to the Surgeon-General will not get rid of them. It will put them under the Surgeon-General, at least a man who holds the degree of doctor of medicine and who understands the problems of the man in the practice of medicine. While it will not give us what we want, it will at least give us a medical man at the head. I talked to Dr. Cross and asked permission to quote him. He said anything that would tend to put the Children's Bureau in the Department of Health would make it much easier to work with the people who have these things in charge, if they are the men in the Public Health Department. In this city as I understand they are cooperative and willing to recognize the local situation and they try not to disturb it. The exactly opposite is true of the Children's Bureau. They pay no attention to the local situation. The recent activities with the Cook County Hospital is an example of this. Dr. Daily comes to Chicago and says what can be done in Illinois in business directly under the administration of Dr. Cross and his department of Public Health. It required an opinion from the Attorney General of the State of Illinois that in so doing they were working in direct opposition to the laws of the State of Illinois and also to some federal laws. The sooner we get that crowd into the Department of Public Health or some place where they can be controlled the better. We should have that Department of Public Health in the President's cabinet but we will not get it now.

DR. W. E. KITTLER, Rochelle: There seems to be quite a number of questions. Why not refer this to the Council for proper action. They will think this over and adjust it.

DR. PHIFER: If the group feels that what Dr. Hutton said is right, I will support him.

(Motion carried).

**5. TRANSFERENCE OF HEALTH ACTIVITIES NOW BEING CONDUCTED BY THE CHILDREN'S BUREAU OF THE DEPARTMENT OF LABOR TO THE UNITED STATES PUBLIC HEALTH SERVICE (See Page 92)**

DR. HAMMOND: The Committee recommends the adoption of the resolution.

I move concurrence in the recommendation of the Committee. (Motion seconded by Dr. Harlan English, Danville, and carried).

**6. OPPOSITION TO FURTHER COVERAGE BY THE E.M.I.C. PROGRAM (See Page 95)**

DR. HAMMOND: Since the salient features of this resolution are embodied in resolutions Nos. 5 and 7 the Committee recommends that the Macon County Medical Society be complimented on its interest and initiative and that the resolution be placed on file. I move concurrence in the Committee's recommendation. (Motion seconded by Dr. Harlan English, Danville, and carried).

**RESOLUTION OF THANKS**

*Whereas*, the One Hundred and Fourth Annual Meeting of the Illinois State Medical Society held in Chicago May 16, 17, 18, 1944, is now drawing to a close, and

*Whereas*, it has been a most interesting and instructive meeting with outstanding papers and discussions, and

*Whereas*, the arrangements and services have been most excellent, and

*Whereas*, the Chicago Medical Society has again demonstrated its ability to conduct a meeting perfectly, in every detail, and

*Whereas*, the Chairman and Committee members of the Chicago Medical Society have done themselves proud by making this meeting a most comfortable and memorable one, and

*Whereas*, the Woman's Auxiliary has graced our meeting by their presence, and added color to the meeting, and

*Whereas*, everyone given a duty has done a remarkable performance in taking his or her part in making this meeting so successful in spite of the exigencies of the war shortage of manpower,

*Be it hereby resolved*, that the Illinois State Medical Society express their gratitude and extend thanks to each and every one responsible for the successful performance and conclusion of this Annual Meeting.

DR. HAMMOND: The Committee recommends the adoption of this resolution, and I move concurrence in the recommendation. (Motion seconded by Dr. J. J. Moore and carried).

THE ACTING PRESIDENT: We come to unfinished business and the Secretary tells me there is none. We will pass to new business.

THE SECRETARY: We extended an invitation to Major-General George B. Lull to attend the meeting. He thought he could be here but found it impossible. I have a communication from him.

We have two candidates for emeritus memberships, who have been approved, and two additional ones which just have come in. Dr. C. H. Voorheis, Crawford County, and Dr. S. W. Parowski, Chicago Medical Society, have been approved for emeritus membership.

DR. J. W. LONG, Robinson: I move that these two men be elected to emeritus membership. (Motion seconded by Dr. C. E. Wilkinson, Danville, and carried).

THE SECRETARY: Dr. Andy Hall has submitted the names of Dr. S. A. Thompson and Dr. E.

Maurice Smith, both of Mt. Vernon, and the local Society recommends that emeritus membership be granted.

DR. ROBERT HAYES, Chicago: I so move. (Motion seconded by Dr. Charles H. Phifer, Chicago, and carried).

THE ACTING PRESIDENT: The next order of business is the induction of the President-elect into the office of President. May I say that being in the rather peculiar position of having served as acting president for the last few months and now serving as president-elect, it gives me a great deal of personal pleasure to introduce the new president of the Illinois State Medical Society and to assure him that the House of Delegates will wholeheartedly support him and that I personally will give him my wholehearted cooperation. If this year should in any way prove difficult, if my health stays right, no matter how hard I am crowded I will be only too happy to help in any way possible. With genuine pleasure I turn over the gavel which is symbolic of all the Society stands for, to Dr. Everett P. Coleman, your new president.

DR. COLEMAN: Mr. Retiring President and members of the House of Delegates: I want to express my appreciation of the signal honor you conferred upon me. I also realize more and more and especially in the last three days, the responsibility that it carries. I shall do the best I can to carry that out. I am in a rather unusual position; when a downstater is elected president he is sandwiched in between two Chicago men, a retiring president and a

president elect. I am sandwiched in between Dr. Berghoff and Dr. Berghoff. This gavel is a most excellent thing for me to have for the coming year. In the country from whence I come the old settlers tell a story of the origin of the term "Indian giver". Dr. Berghoff, I would not want to apply that term to you. Dr. Berghoff has given me the gavel with the admonition that next year I shall give it back to him in good shape.

I would like to mention one or two things. This Society has three obligations for the coming year, as it has always had. It has always had two: First, its obligation to the public and our interest in the public from the health standpoint in the state of Illinois and we have done a good job there. Our mortality records prove that. Our second obligation is to the members of the medical profession. We have done a reasonably good job. We have not known how to do as good a job to protect ourselves as we have the general public. Third, is our obligation to the doctors in service. The kind of practice that these men return to will be the kind of practice that the members of this Society are willing to fight for. With the cooperation of the members of this Society we will put up a pretty good fight.

I now declare this meeting adjourned.

DR. CHARLES H. PHIFER, Chicago: I would like to move a rising vote of thanks for the dignified way in which Dr. Berghoff has conducted his acting presidency during the last four days. (Motion seconded by many and carried).

The House adjourned *sine die* at 1 P.M.



## SAYS POST DELIVERY CONFINEMENT PERIOD CAN BE SAFELY SHORTENED

150 Patients With No Complications Were Allowed Up On Third Or Fourth Day With No Ill Effects, Physician Reports

Experience at Sinai Hospital of Baltimore, and elsewhere, indicate that bed shortages in maternity wards can be relieved at least in part by allowing patients to be up on the third or fourth day after delivery instead of remaining flat on their backs for ten or twelve days, Morris L. Rotstein, M.D., Baltimore, reports in *The Journal of the American Medical Association* for July 22.

"Because of the greatly increased number of patients in the obstetric clinic at the Sinai Hospital of Baltimore, with the resultant bed shortage," Dr. Rotstein says, "we decided to allow a

series of patients up early in the puerperium [period of confinement after labor] to increase our bed turnover and note the various effects if any. One hundred and fifty patients who delivered vaginally were chosen at random and allowed up on their third or fourth day after delivery. Parity and type of delivery were not taken into consideration. However, no patient with toxemia [toxins in the blood], heart disease or other complication of pregnancy was included in this group. . . . In this series no ill effects were noted. The patients when allowed up felt well and were able to walk about and take care of both themselves and some of the inbed patients, thus greatly assisting a war depleted nursing staff. When allowed home, which varied from the sixth to the eighth postpartum day, they felt strong and were better equipped to go about their duties of taking care of themselves and their new-born infants. . . ."

# Industrial Health

Committee On Industrial Health — Frederick W. Slobe, Chm., 2024 South Western Ave., Chicago, Frank P. Hammond, H. A. Vonachen, R. I. Barickman, C. O. Sappington, Milton H. Kronenberg.

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## THE RESPONSIBILITY OF THE PHYSICIAN IN INDUSTRIAL PRACTICE

C. D. SELBY, M.D.

DETROIT

In the preceding lectures of this course you have excellently and completely covered the field of industrial health, and I believe I am justified in assuming that you are fully informed on the great progress made in this exceedingly interesting field of medical practice in recent years, particularly during the war. You are undoubtedly acquainted with the Minimum Standards for Medical Service in Industry, promulgated by the American College of Surgeons in 1931, the more recent contributions of the Council on Industrial Health of the American Medical Association, the activities of the Division of Industrial Hygiene of the United States Public Health Service and the Industrial Hygiene Bureaus of the several states; the researches of the Industrial Laboratory of the National Institute of Health, the Industrial Hygiene Foundation of America and various institutions of learning; the work of the American Association of Industrial Physicians and Surgeons, the American Industrial Hygiene Association and the committees on industrial health in the emergency structures of the federal government. And I am sure that you know of the contributions which the physicians in industry themselves have made.

With this vast store of knowledge available for his guidance, it is the responsibility of the

physician in industry to protect the health of the industrial workers. In time of peace this is economically sound, in times of war it is an important means of conserving manpower and at all times it is humane and in line with medicine's high principles. It is therefore an exceedingly important responsibility.

How the physician in industry meets this responsibility you already know. I shall not repeat. Suffice it to say, his immediate objectives are:

- (1) To prevent occupational diseases.
- (2) To maintain healthful working conditions and environments.
- (3) To control disabilities resulting from occupational injuries and to rehabilitate those who have become handicapped.
- (4) To secure early diagnoses of communicable and other controllable nonoccupational sicknesses in the employees.

These objectives entail the use of:

- (1) Medical and sanitary supervision of working conditions and environments, toilets, washrooms, locker rooms and in-plant feeding facilities.
- (2) Preplacement and periodic health examinations.
- (3) Health consultations and instruction, personal as well as general.
- (4) Treatment of occupational injuries and diseases and rehabilitation measures for the impaired.
- (5) Temporary care of minor ailments and medical emergencies.
- (6) A good record system, and
- (7) Cooperative relationships with the local medical profession and the official health agencies.

This program is essentially one of sickness and disability control, and the results throughout the war so far have been more effective safer employment for the people who have impairments which limit their fitness for work on war

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Presented before the Committees on Industrial Health of the Illinois State Medical Society and the Chicago Medical Society, University of Illinois College of Medicine, Chicago, Illinois, March 28, 1944.

jobs, as well as for those who are whole and healthy and can do any kind of work on any shift.

Measured by the magnitude of the war production it can be said that industry has been successful in the employment of the limited service groups, and the risk to them through occupational injuries and diseases appears to have been no greater than it is among others.

On the contrary, it might even have been less as suggested by the fact that the accident severity rates of a large producer of war products, a large proportion of whose employes have impairments which limit their fitness for work, have dropped to new all-time lows each year of the war. Last year the rate was less than  $\frac{1}{2}$  day per 1000 hours of work.

So it can be said, the responsibilities engendered by the war have been well met by the physician in industrial practice, particularly in his contributions to the maintenance of effective manpower. His wartime responsibilities need not be discussed further.

On the contrary, we may well concern ourselves more appropriately with the problems which must be met henceforward to the end of the war, during the change back to civilian production, and for some time after.

*Preplacement Examinations.* Handicapped people are defined as those who have impairments of a physical nature or changes in personality which limit their fitness for work, and, consequently, cannot be approved unqualifiedly for employment. They are termed "limited service employes" and they are hired when productive jobs suited to their capacities are available and can be performed without risk to them and to others.

The process of evaluating impairments, finding suitable jobs, assigning the handicapped to them and training them for effective safe performance is known as selective placement.

Chiefly because of manpower shortages and the necessity of employing handicapped people to maintain manpower, the trend toward selective placement has been greatly accelerated.

The key to selective placement is in the preplacement examinations. Appreciating their importance the physician in industrial practice has improved his examination procedures and made them sufficiently complete to serve the

purposes of selective placement on a large scale. To do this he has had to rearrange his examination quarters for smooth but rapid flow of examinations. He has had to add special equipment for aid in the prompt diagnoses of visual impairments and certain diseases which restrict employability. Furthermore, he has needed to devise simple methods of recognizing unusual personality traits insofar as they relate to safety and efficiency in job performance.

For the purposes of this paper it is not necessary to discuss the various steps of the selective placement procedure for not all of them are medical. It is sufficient to say, the decision as to placement is based largely on preplacement examinations and the ultimate success of the procedure in many cases rests on the medical supervision which follows placement.

The important point to make at this time is this — because of its value in the maintenance of health and in view of the permanency of employment under seniority rights, selective placement is becoming a hiring method of choice. Therefore the preplacement examinations are assuming a position of consequential importance. This is becoming increasingly evident as disabled veterans return seeking re-employment.

*Re-Employment of Veterans.* As a matter of fact the veterans have already come back to the plants in considerable numbers and although the proportion of them who are severely handicapped is yet small many have, nevertheless, acquired personality changes, mostly of a temporary nature, which are creating employment problems.

As you probably know, the Selective Training and Service Act of 1940 requires private employers, under certain conditions, to re-employ veterans who have previously worked for them and employers generally wish to do so. But they are now learning that it is not merely a matter of just rehiring and many do not know what to do. Consequently, the physician in industrial practice who sees the opportunity and does something about it, is placing himself in an excellent position for the balance of the war and the uncertain months that inevitably will follow.

In order fully to safeguard the handicapped they are selectively placed and then the plant

physician observes their progress periodically until they are accustomed to their work. Once they are seasoned and it is evident that the work is free of unfavorable influences, the doctor may then regard the handicapped as normal employees and give them the conventional periodic examinations accorded all employees for the maintenance of their health.

Of course, limited service employees may not be transferred to jobs that vary essentially from those of original assignment, without medical approval. In following through with the handicapped, in fact in all relations with them, it is well to bear in mind that they are probably worried about their security and until they are assured by success on the job they may have a diversity of personality reactions. Even so, it can be assumed that most of them are just normal people and they should be treated as such, avoiding undue sympathy, unsought advice and too much waiting upon.

Just a final word about the rehabilitation of veterans. It has an immensely popular appeal, more or less of a political value, and many agencies and organizations are competing for the privilege. The result is much confusion and I fear certain fundamentals are momentarily being lost from sight. Hence, a word of caution.

Regardless of what the official agencies or the voluntary organizations can do for disabled veterans, and assuming that physical and personality restorations are made as complete as possible to obtain, the final results of rehabilitation rest with the veterans themselves and their use of the opportunities which their employers are able to make available to them. Obviously, however, the disabled veterans should be given as favorable opportunities as are available and that is the purpose of selective placement, of which the preplacement examinations and medical follow-ups are exceedingly important steps.

Selective placement is a means of in-plant rehabilitation, the final test of the program, and it will continue after reconversion, giving the physician in industrial practice one of the great opportunities of his career.

*The Change Back.* In the reconversion of industry I do not look for any important changes in the status of the physician in industrial practice. The demands for his service will be dif-

ferent, yes, but his opportunities will continue to broaden in accordance with his ability to take on new responsibilities.

The manpower problem will be lessened with the termination of war contracts, perhaps ended for a time, and there will be a period during the change back to civilian production when employment can be expected to be at relatively low levels. Because of accumulated seniority rights and the considerations required or expected of employers, veterans will be given preference in employment over temporary war workers, who are largely the women and the handicapped persons now employed in substantial numbers. No doubt many of these war workers will go back to their homes. Others will resume civilian occupations considered to be inessential during the war. Others will become unemployed.

Experiences under similar conditions have proven that claims for compensation are likely to increase and no doubt they will this time. If so, the physician in industrial practice will find ample opportunities for his talents in the examination of claimants, checking back on their physical and medical records, and otherwise in preparing himself for expressions of impartial opinion on questionable cases.

Incidentally I sense a growing interest in examinations at termination of employment. I do not anticipate the general adoption of such as a feature of the change back, nor do I advocate it unless the purpose is for rehabilitating employees who have suffered occupational impairments which have inadvertently been overlooked. In my opinion well performed industrial health maintenance programs obviate the necessity of terminal examinations.

*Postwar Industrial Hygiene Control.* After the war and once the reconversion is accomplished a considerable industrial expansion is expected. Out of it will come new industrial hygiene problems or variations in the old ones which will require extensions of in-plant industrial hygiene activities.

During the war this field has been extended mostly through the official agencies, and in securing personnel to meet their needs they have exhausted the supply of trained industrial hygienists and made some new ones. As excellent as the service has been, and it has been an outstanding contribution to the war effort, it is

nevertheless one which industries of substantial size should have available on their premises.

The trend in this field after the readjustment period is over, when trained industrial hygienists will probably be available, will likely be in that direction, and Medical Departments in plants of, say, 5000 and up will be expected to have their own industrial hygiene laboratories.

Through these laboratories I can foresee greater progress along plant housekeeping lines — such as in the maintenance of sanitary conditions in the locker rooms, wash rooms, toilets, rest rooms and cafeterias, as well as in the control of occupational disease exposures.

The responsibility of the physician in industry is extending inevitably in this direction and to meet it he must have appropriate laboratory facilities with trained industrial hygiene personnel and bacteriologists. The physician in industrial practice is truly the health officer of the plant.

*Nutrition.* In-plant feeding of industrial workers has been given an energetic impetus by the war and just how much of a responsibility the physician in industrial practice will acquire as a result I do not know. Certainly the medical profession has become more conscious of the effects of nutrition on health and is becoming more capable in the treatment of deficiencies resulting from undernourishment.

I suspect when industry settles back to civilian production, and rationing is a thing of the past, that plant cafeterias will be operated very much as they were before, though perhaps with better medical and sanitary supervision. And that the plant physician will diagnose and refer deficiency cases to doctors in private practices in much the same fashion as he deals with all cases of nonoccupational sickness.

*Control of Communicable Diseases.* Important health problems of the physician in industrial practice will continue to be, perhaps increasingly so up to the end of the war and after, in the control of tuberculosis and other communicable diseases. It is assumed in many circles that tuberculosis, syphilis and such will be increased by the war. So far as I know, there is no substantial evidence as yet to support that opinion. Even so, industry will continue to be the most important case finding agency available to the adult population for the

early discovery of these communicable diseases. The physician in industrial practice who is functioning along preventive lines will be in a much better position than the one who has no facilities for this type of service.

Parenthetically there may be some problems as yet unproven in the tropical diseases, which conceivably can be brought back by veterans from service in infected areas — malaria, etc. If such problems do arise they will have to be handled as they appear for there does not yet seem to be any clear plan to anticipate them.

*Mental Hygiene.* Prior to the war industry was studying mental hygiene programs with some scepticism, but doctors of industry have long believed that something could be done in this field and many of them, either consciously or not, were using psychosomatic methods in their consultations with the employes, but no definite pattern had become generally accepted.

Military experiences in this field have brought added attention to the great importance of sound personality attitudes, methods of detecting variances from the sound and means of correcting them. I am sure that these war experiences will influence postwar industrial medicine considerably.

The physician in industrial practice must therefore be thinking along these lines with a view to developing a practical program in industrial mental hygiene.

*Education.* While the practice of industrial health is not a specialty in the customarily accepted sense, it is a field that definitely does require special knowledge and preparation. Furthermore, there is a growing demand for the services of those who are specially prepared and consequently there is also an ever increasing need for courses of training in both the under- and postgraduate areas of medical education. At present this need is being met by courses such as this. After the war we can expect a rather rapid expansion in under-graduate facilities for teaching and with expansions of this character we can look for recognition as specialists, but not until then can we expect that well deserved and greatly desired mark of distinction.

*Physical Therapy.* Industrial physicians have long been aware of the value of physical therapy and therapeutic exercises in the treatment of major injuries and have used them concurrently

with conventional care, but that has not been a general practice. As a result of progress in this field during the war I can foresee postwar developments of this nature, perhaps in the form of special hospitals, or wings in general hospitals, for the simultaneous treatment and rehabilitation of traumatic cases.

*Medical Care Plans.* My final suggestion is that the physician in industrial practice watch the progress in medical care plans, because he is very positively concerned although he does not now treat nonoccupational conditions.

When one studies the so called problems of medical care one concludes that there are important services already available to the employed groups which are ignored in plans now in effect and proposed. These are the services furnished by industry without cost to the employee, and there is a possibility that general medical care of the employees and their families will be ingrafted upon these.

In conclusion it can be said that the physician in industrial practice has met his wartime responsibilities very well. In doing so he has greatly broadened his program and increased his usefulness. Out of these wartime successes have come new responsibilities and suggestions for postwar activities.

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### JOB PLACEMENT FOR THE HANDICAPPED

In the *Manufacturers' News* for April, 1944, Col. H. H. Weimer, Veterans Employment Representative for Illinois, has an interesting article relative to the physical requirements for various jobs, working conditions, and their relationship to the placement of the handicapped.

Col. Weimer states in part:

"One of the fallacies handed down from the stone age, when disabled folks were disposed of by bashing in their heads, is the feeling that they are a distinct group different from 'normal people'. Perfection — physical, moral, mental — is a rare thing. Only One Being in all history achieved it.

"The employer who spends his time and money seeking supermen only — 'perfect' men — finds his production record looking sick by comparison with records of firms who are being realistic and who are making an intelligent approach to their problem.

Mr. Vernon K. Banta of the War Manpower Commission's Office points out that the best technique for knowing the handicapped applicant better, knowing

the job better, and doing a job of properly placing the worker, is the 'Physical Demands Analysis' — the physical activities performed by a person on the job. Detailed information is secured on the physical activities required by the job and the physical activities and working conditions suitable for the applicant.

"Such a Physical Demands Analysis can be used not only for the proper placing of disabled veterans and other handicapped persons, but also for women, the very young and the aged. It provides a common language to be used by the job analyst, the personnel worker and the doctor. It permits approaching the problem of placement of the handicapped on a positive basis since *THERE IS NO JOB that requires ALL of the physical and mental capacities of human beings for successful performance.*

"This should encourage you, Mr. Employer, to relax fitness requirements which have been set at *unnecessarily* high levels.

"Try it. Have your job analyst prepare the physical demands information on the jobs in your plant and office. He can do this as part of a complete job analysis or make an independent listing of the physical demands.

#### ANALYZE PHYSICAL DEMANDS

"Here is a job — an Arc Welder who works on army tanks. When you or your job analyst observe every physical movement he makes, your record will read something like this:

"Stoops, grasps (handles) lifts and carries 40-pound pieces of armor plate (16" x 16" x 1") about 5 steps, (Involves walking). (Spends about 10% of all activities on this.) Pushes plates into steel jig, turning and reaching in all directions and pushing and pulling hand-operated clamping devices to secure plates in jigs before welding (15%). Climbs and crawls about tank to place where welding is to be done (5%). When welding crouches and kneels in awkward positions inside tank bodies (25%) and stands and kneels on tank tops (25%) being careful to keep balance. During the welding process, holds electrode holder in one hand and steadies its motion by resting hand on other arm, maintaining proper arc by using *sight* to observe weld. Pushes and pulls arc-welding generator to various desired locations and adjusts control knob by hand (5%). Handles and uses a light chipping hammer, a portable grinder, a small slag hammer, and such small parts as bolts and brackets both inside and outside tanks (15%)."

"Now check every one of these activities on a form as illustrated and you have a picture that talks to your personnel people, your doctor, your foreman — and tells them in plain United States just what a man will have to have in order to handle this job.

"Place alongside of it another picture of the working conditions of the job which can be developed from an analysis something like this:

"Works alone or around others inside well-lighted and ventilated plant. Works in cramped quarters inside tank bodies and on tank tops ten feet above cement floor. Exposed to odors of mildly toxic welding

## PHYSICAL DEMANDS FORM

Job Title: PRODUCTION WELDER. Occupational Code: 4-85.020

Dictionary Title: WELDER, ARC

Firm Name &amp; Address: General Motors Corporation, 2700 Tweedy Blvd., Los Angeles

Industry: Ordnance &amp; Accessories Manufacturing. Industrial Code: 1931

Branch: Tanks, Manufacturing. Department: Welding

Company Officer: F. G. Douglas. Analyst: Barry Fagin. Date: 7-15-43

## PHYSICAL ACTIVITIES

X 1 Walking	16 Throwing
2 Jumping	X 17 Pushing
3 Running	X 18 Pulling
X 4 Balancing	X 19 Handling
X 5 Climbing	20 Fingering
X 6 Crawling	21 Feeling
X 7 Standing	22 Talking
X 8 Turning	23 Hearing
X 9 Stoopng	X 24 Seeing
X 10 Crouching	25 Color Vision
X 11 Kneeling	26 Depth Perception
12 Sitting	27 Working Speed
X 13 Reaching	28
X 14 Lifting	29
X 15 Carrying	30

## WORKING CONDITIONS

X 51 Inside	X 66 Mechanical Hazards
52 Outside	X 67 Moving Objects
53 Hot	X 68 Cramped Quarters
54 Cold	X 69 High Places
55 Sudden Temp. Changes	X 70 Exposure to Burns
56 Humid	71 Electrical Hazards
57 Dry	72 Explosives
58 Wet	X 73 Radiant Energy
59 Dusty	X 74 Toxic Conditions
60 Dirty	75 Working With Others
X 61 Odors	X 76 Working Around Others
X 62 Noisy	77 Working Alone
X 63 Adequate Lighting	78
X 64 Adequate Ventilation	79
X 65 Vibration	80

## DETAILS OF PHYSICAL ACTIVITIES:

When this form is filled out, and the percentage of working time used in each task, as explained on the following page, is added to the record, you have the facts needed to determine whether a man's incapacities render him unfit for the job.

fumes, to ultra violet and infra red radiation from electric arcs; to loud noises in plant; to sharp-edged steel parts; to hot metals and flying sparks, to overhead cranes carrying tank parts; and to vibration from pneumatic chipping hammer.' Now, check these and the picture is complete.

## APPRAISE PHYSICAL INCAPACITIES

"Now, here comes a veteran with some welding experience. He wants a job. The doctor looks him over and finds two disabilities. He cannot hear and he has chronic bronchitis. Did you say you couldn't hire a man like that? Wait a minute. Let the doctor

SAMPLE NO. 1

WAR MANPOWER COMMISSION  
BUREAU OF MANPOWER UTILIZATION  
Division of Occupational Analysis and Manning TablesBudget Bureau No. 11-ROSS, 1  
Approval Expires Mar. 31, 1944

## PHYSICAL CAPACITIES APPRAISAL

Name: William F. Age ..... Sex ..... Height ..... Weight .....

## PHYSICAL ACTIVITIES

1 Walking	16 Throwing
2 Jumping	17 Pushing
3 Running	18 Pulling
4 Balancing	19 Handling
5 Climbing	20 Fingering
6 Crawling	21 Feeling
7 Standing	22 Talking
8 Turning	X 23 Hearing
9 Stoopng	24 Seeing
10 Crouching	25 Color Vision
11 Kneeling	26 Depth Perception
12 Sitting	27 Working Speed
13 Reaching	28
14 Lifting	29
15 Carrying	30

## WORKING CONDITIONS

51 Inside	X 66 Mechanical Hazards
52 Outside	67 Moving Objects
53 Hot	68 Cramped Quarters
54 Cold	69 High Places
X 55 Sudden Temp. Changes	70 Exposure to Burns
X 56 Humid	71 Electrical Hazards
57 Dry	72 Explosives
X 58 Wet	73 Radiant Energy
X 59 Dusty	74 Toxic Conditions
60 Dirty	75 Working With Others
61 Odors	76 Working Around Others
62 Noisy	77 Working Alone
63 Adequate Lighting	78
64 Adequate Ventilation	79
65 Vibration	80

DETAILS OF PHYSICAL ACTIVITIES: Blank space = Full capacity; / = Partial capacity; X = No capacity.

May lift, carry, handle, push or pull up to ..... pounds per hour

May engage in activities numbered ..... up to 2/3 of work period

May engage in activities numbered ..... up to 1/3 of work period

Sight: .....  
Hearing: .....

Others:

The doctor's examination, using an actual example, might show the following: Diagnosis: Catarrhal otitis media. Prognosis: Guarded — chronic. Specific Remarks: May work in noisy surroundings but should not use hearing aid then. 55, 56, 58, 59 should be avoided because of possible colds. Very loud bell or lights needed on machine he uses.

take his form (see how similar it is to the physical demands form). Let's call the doctor's form a 'Physical Capacities Appraisal.' You can also call it a 'Physical Incapacities Appraisal' or 'Medical Report.' Let your doctor content himself by using strictly medical terms in writing his own diagnosis, prognosis, etc., but he checks the form to indicate what the man cannot do, and what working conditions the man should have. This, too, is plain United States.

"Now the Personnel man can check the doctor's form against the list of Physical Activities. If he finds anything to conflict, he finds out to what extent. If nothing conflicts, the man can be hired. In the case used as an illustration, the disability checked by the doctor is not one of the physical requirements of the job, so there exists no reason why the man should not be hired. Simple, isn't it? And it's fair.

"Someone might now arise to remark, 'I've seen

some of my welders listen for the hissing sound. They must have hearing for this.' That would be true if they *had* to listen, but that's merely a habit — NOT A REQUIREMENT. The organ that is a requirement is the eye — they must see the appearance of the weld.

"This approach — the use of Physical Demand lists and Physical Capacities Appraisal — is receiving wide acceptance.

"Loss Prevention Departments of certain insurance Companies are advocating similar methods. They are for it because the proper application of it prevents loss.

"I am for it because it helps veterans to be placed in jobs that they can handle.

"You should be for it for both reasons — plus others that will appear and appeal to you."



## PRESENTS SCIENTIFIC EVIDENCE A SHARK WILL ATTACK A HUMAN BEING

Scientific evidence that a shark will attack a human being is presented in *The Journal of the American Medical Association* for July 22 by Captain B. H. Kean, Medical Corps, Army of the United States.

"Controversy as to whether or not sharks will attack human beings," Captain Kean says, "has raged so violently in popular magazines and Sunday newspaper supplements that the medical and military importance of the subject may have been obscured. Injuries often attributed to sharks have been shown on closer investigation to have been inflicted by fish such as the barracuda. For this and other reasons some have been inclined to ridicule or deny the danger of sharks. The present case is reported because scientific identification of a shark which attacked a human being is rare.

"The attack occurred at 2:35 p. m., Sept. 23, 1943, in a shallow cove about 75 feet off the north shore of Rey Island, Gulf of Panama, Pacific Ocean, where a Navy boat had anchored. No refuse had been dumped into the cove; no sharks were seen.

"A sailor aged 20, wearing swimming trunks, dived into the water to determine if the ship's propeller had been fouled or damaged. As he came up he was attacked by a 'man-eater' shark 6 or 7 feet long, which was seen at close range by the captain and by several members of the crew. It was impossible to shoot the fish without subjecting the sailor to danger, for both were thrashing about, the shark making repeated attacks. The injured man was lifted on deck within one minute of the initial attack. He was bleeding profusely from wounds of the left leg. . . ."

The sailor died in shock four hours after admission to the hospital and seven hours after the injuries were received. Fragments of several teeth were found in the wounds. The tips of two teeth were shown to Mr. John T. Nichols, curator of recent fishes, of the American Museum of Natural History, New York, who identified them as "tips" of the teeth of a small so-called man-eater shark *Carcharodon carcharias*, and from a small individual of this species probably not more than 7 feet long. Dr. C. M. Breder Jr., curator of the New York Aquarium, concurred in the identification.

# News of the State

## PERSONALS · COMING EVENTS · MARRIAGES · DEATHS

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### BOONE COUNTY

American soldiers wounded in battle in Normandy arrive in base hospitals in England within a few hours after becoming casualties, thanks to the 9th air force troopcarrier evacuation units. Operating from an air field hacked out four days after the invasion, transport planes fly a ferry service in such numbers that a plane is always waiting to bring the wounded away. Men hurt at noon find themselves between clean sheets in England by sunset. Captain E. W. Douglas of Portland, Oregon and Captain W. B. Oliver of Belvidere, Illinois, direct the medical corps in charge of putting the wounded aboard planes. Captain Oliver is a member of the Boone County Medical Society.

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### COOK COUNTY

Michael L. Leventhal of the 16th Evacuation Hospital in Italy and David D. Kram, 117th Evacuation Hospital, Fort Bragg, N. C. have been promoted from Major to Lt. Colonel. Lt. Col. Phil Daly is Commanding Officer of the 16th Evacuation Hospital.

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The Chicago Daily News of July 20th carried a story about W. B. Egan of River Forest and his experiences with the forces on Saipan. Doctor Egan is a Lt. Commander in the Navy.

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Earle I. Greene, Associate Professor of Surgery at Northwestern University has been promoted to the rank of Lt. Col. He entered the Army Medical Corps in February 1942 and arrived in North Africa the following December to serve as chief of general surgery of a general hospital. He now is acting as surgical consultant for the Island of Corsica.

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Employees of the Hallicrafters recently presented a gift of \$5,000 to Brig. Gen. P. J. Carroll, commanding general of Vaughan General Hospital, Hines, for any designated use of the hospital. Half the amount represented

wages for two extra hours worked on D-Day, contributed by the employees and the other half would have been used for the company's annual picnic, which the employees voted to forgo this year. The company manufactures radio communications equipment.

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Dedication ceremonies during which the Gardiner General Hospital was turned over to the United States army medical corps were held on July 9 on the hospital lawn at 1660 Hyde Park Boulevard. The hospital was dedicated in honor of Lt. Ruth M. Gardiner, army flight nurse, who was killed July 27, 1943, near Naknek, Alaska, while on a mission for the evacuation of wounded by air transport.

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The Chicago Tribune of July 25th carried a story of the Northwestern University army medical units creation of a general hospital on the outskirts of Rome equal in size to the Cook County Hospital. They had the hospital in operation in five days. Col. John H. Sturgeon, the director was graduated from Northwestern University Medical School. Lt. Col. Earl R. Crowder formerly of the Evanston Hospital is in charge of the X-Ray and Diagnostic laboratory. The unit includes officer and enlisted personnel largely from the Chicago area who have served together through the African and Italian campaigns. There are 73 medical and administrative officers, 166 nurses and 656 enlisted men besides physio-therapists, Red Cross workers and dieticians. Chief of medicine is Lt. Col. Marion Barker, formerly of Passavant Hospital. Lt. Col. Michael L. Mason is chief of surgery and his assistant is Major Harvey S. Allen. Major Benjamin Boshes is head of a special section devoted to treatment of mental exhaustion. Many of the unit are well known in Chicago medical circles. The hospital, north of the Tiber on a picturesque country road, is in full operation with a normal capacity of 2,000 beds and a

possible maximum of 2,500. The plant covers 80 acres.

The Chicago Medical Society is sponsoring a series of popular health lectures at the Museum of Science and Industry, Jackson Park, Chicago. The meetings are held at 8:00 o'clock with a small admission fee. The following programs have been scheduled.

July 26, 1944 — Facts About Cancer — Josiah J. Moore, M.D., President Chicago Medical Society.

August 2 — Allergy, Facts And Fiction — Samuel M. Feinberg, M.D., Associate Professor of Medicine, Northwestern University Medical School.

August 9 — Your Glands And What They Do To And For You — James H. Hutton, M.D., Fellow American College of Physicians.

August 16 — Present Day Knowledge Of Infantile Paralysis — Edward E. Piszczek, M.D., Assistant Professor & Acting Director Department of Public Health & Preventive Medicine, Loyola Univ. College of Medicine.

August 23 — Aviation Medicine — Andrew C. Ivy, M.D., Professor of Physiology, Northwestern Univ. Medical School.

August 30 — Modern Miracles In Drug Warfare — Austin E. Smith, M.D., Secretary of the Council on Chemistry and Pharmacy of the American Medical Association.

## DE KALB COUNTY

Thomas H. Trainor of Maple Park was found dead in his office from a heart attack, July 9. He had practiced medicine since his graduation from the University of Michigan in 1888. Six years ago, he was presented with the 50-year button and was made a member of the "Fifty Year Club" of the Illinois State Medical Society.

April 13th the DeKalb County Medical Society held a joint meeting with the DeKalb County Tuberculosis Association in honor of the fourteen DeKalb County Physicians serving in the armed forces. Wives of these doctors were special guests. The speaker of the evening was Dr. J. A. Myers, Professor of Medicine and head of the Chest Clinic at the University of Minnesota. He discussed both bovine and human tuberculosis, the value of the tuberculin test and x-rays and stressed the importance of controlling those having active contagious tuberculosis. The doctors honored were: Lt. Paul Bergstrom, Kirkland, — U. S. Navy; Lt. Paul W. Carney, DeKalb — U. S. Army Air Corps; Lt. Commander Carl E. Clark, Sycamore — U. S. Navy; Capt. John F. Eggers, Sycamore — U. S. Army; Capt. Bernard F. Howland, Sycamore — U. S. Army; Capt. Robert F. Keller, Sandwich — U. S. Army; Lt. Edw. W. Levey,

DeKalb — U. S. Army; Capt. Meier Mahru, Sycamore — U. S. Army; Major Ralph G. McAllister, DeKalb — U. S. Army; Lt. Col. Scholnik, Genoa — U. S. Army; Lt. Commander Howard E. Spafford, DeKalb — U. S. Navy; Capt. Grant Suttie, DeKalb — U. S. Army; Capt. E. W. Telford, DeKalb — U. S. Army.

E. A. Piszczek, Director of the Cook County Public Health Unit, Chicago, was introduced by F. A. Tornabene, District Health Officer, at a joint meeting of the DeKalb County Medical Society and the DeKalb County Registered Nurses on the evening of July 6th at the Fargo Hotel, Sycamore. He talked on "Infantile Paralysis, Research and Treatment." Lawrence J. Hughes of Elgin, Councilor and Louis Scudder of Iraq were present and gave short talks.

## GREENE COUNTY

W. F. Waggoner of Carrollton who died on July 14th, was the oldest physician in Greene County. J. S. Billings of White Hall is the oldest in years of practice in Greene County.

## JEFFERSON-HAMILTON COUNTY

Charles F. Sherwin addressed the Jefferson-Hamilton County Medical Society at the Nurses Home, Good Samaritan Hospital, Mt. Vernon, June 29th. His subject was "Early Diagnosis and Treatment of Malignancies of the Uterus and Breast." Radical operation for removal of the breast, pectoral muscles and axillary glands was illustrated by moving pictures.

The Mt. Vernon Hospital was taken over by the Sisters of St. Francis, January 1, 1944. Modern equipment has been installed and it is now known as the Good Samaritan Hospital. It has been recognized by the American Medical Association.

Major Leslie Young, Flight Surgeon, has recently returned from 26 months service in North Africa, Sicily and Italy. His home is at Fairfield.

## KNOX COUNTY

Mayo General Hospital, Galesburg, was formally dedicated in July. Military and civilian personnel of the hospital, in addition to many prominent civilian officials of Illinois and army officers from Washington, D. C. and Sixth Service Command Headquarters in Chicago attended the ceremonies. Dedication of this Mayo General Hospital, in which is incorporated every known piece of medical equipment and a staff including specialists in virtually every field, climaxes a story of remarkable achievement that

begins with the breaking of ground in a cornfield a little more than a year ago and ends with one of the country's most completely equipped hospitals ready to receive the Army's wounded. Colonel H. L. Krafft, brother of the late Jacob C. Krafft Past-President of the Illinois State Medical Society, is in command of the hospital.

### LIVINGSTON COUNTY

Members of the Livingston County Medical Society met on July 20th at Fairbury. A tour was made of the hospital and the scientific program was presented by H. A. Oberhelman, Professor of Surgery, Loyola University Medical College, speaking on "Appendicitis in Children and Its Complications", and Harold Voris, Professor of Neuro-Surgery at Loyola, talking on "Middle Meningeal Hemorrhage and Skull Fracture."

O. L. Bettag, President, reports "Our meetings are usually dinner meetings. We have been fortunate in having been the guests of various institutions throughout the County. This, together with good programs, has resulted in splendid attendance, when one considers the absence of younger physicians in the Armed Service, and the additional duties falling on those remaining at home."

### MACOUPIN COUNTY

H. P. McCuiston of Alton gave an illustrated talk on "Lower Back Pain" before the Macoupin County Medical Society at Carlinville on July 25th.

Lt. Col. Martin A. Compton, M. C., who was born in Palmyra in 1913, has been appointed as a member of the board of the Office of the Surgeon General, the purpose of which is to prepare, develop and implement the medical portion of the War Department's program for aid to civilian populations in liberated countries. Col. Compton is a graduate of Washington University School of Medicine.

### PERRY COUNTY

Captain W. M. Thornburg who has been stationed at New Guinea for two and a half years is visiting friends in DuQuoin, his former place of practice.

### SALINE COUNTY

Three doctors who have been in the practice of medicine for fifty years were honored by their colleagues from Saline, Gallatin and White counties at Eldorado on June 23rd. The doctors honored were J. V. Capel, Harrisburg; William T. Johnson, Eldorado, and James Harrell of Norris City. T. B. Williamson and Andy Hall of Mt. Vernon attended the dinner and Doctor

Hall presented the 50-year club buttons and certificates for the Illinois State Medical Society. The occasion also marked the 77th birthday of Doctor Johnson.

### VERMILION COUNTY

The staffs of Lakeview and St. Elizabeth Hospitals of Danville and the members of the Vermilion County Medical Society met at the home of A. J. Fletcher, Danville on June 22nd. "Chicken, horseshoes and poker" provided the entertainment.

### WINNEBAGO COUNTY

The Rockford Hospital, Rockford, is constructing a large World map showing the location of the different doctors who are in service. Small flags with the name printed upon them are used as the indicators.

### ELECTION RETURNS

At the annual meeting of the Illinois Psychiatric Society held May 6, 1944 the following officers were elected for the year 1944-45: David Slight, President; Joseph Luhan, Vice-President; Frances Hannett, Secretary-Treasurer; Clarence A. Neymann and Rudolph G. Novick, Councilors.

The Illinois Chapter of the American College of Chest Physicians, meeting in conjunction with the annual meeting of the Illinois State Medical Society on May 16, 1944, elected the following officers for the coming year: Fred M. F. Meixner of Peoria, President; Julius B. Novak of Chicago, Vice-President; Arthur S. Webb of Glen Ellyn, Secretary-Treasurer.

### DEATHS

O. PRESCOTT BENNETT, Washington; Chicago Homeopathic Medical College, and University of Illinois College of Medicine, 1890. Practiced medicine in Washington for past 38 years and prior to that had practiced in Mazon for 12 years. Died suddenly June 21, 1944 at the age of 76.

JOSEPH BRENNEMANN, Reading, Vt., Northwestern University Medical School, Chicago, 1900; professor of pediatrics at the University of Chicago School of Medicine from 1921 to 1941; chief of staff of the Children's Memorial Hospital, Chicago, from 1921 to Jan. 1, 1941; at one time attending pediatrician at the Cook County, St. Luke's and Wesley Memorial hospitals in Chicago; professor of pediatrics at the University of Southern California School of Medicine, Los Angeles, from 1941 to 1943; served as chief of staff at the Children's Hospital in Los Angeles. Member and past president of the American Pediatric Society and the Chicago Pediatric Society; editor of "Brennemann's Practice of Pediatrics." Died July 2, aged 71.

ARTHUR M. BRIANZA, Oak Park; University of Illinois College of Medicine, 1892. Had practiced medicine in Chicago more than a half century until his retirement two years ago. Died of a heart attack July 11, 1944 at the age of 77.

LESTER C. DIDDY, Piper City; Chicago College of Medicine and Surgery, 1907. Died July 12, 1944 at the age of 61.

ELIHU N. ELLIOTT, Chicago; University of Illinois College of Physicians and Surgeons, 1883. Died June 29, 1944 at the age of 82.

CHARLES W. HALL, Mt. Vernon; Vanderbilt University School of Medicine, Nashville, Tennessee, 1900 and New York University College of Medicine, 1903. Was on surgical staff at Camp Grant during World War I for more than a year, then went overseas with a field hospital. While serving in France he was promoted to a Major and placed in command of one of the large evacuating hospitals. Practiced medicine in Mt. Vernon in partnership with his uncle for many years. Died June 21, 1944 at the age of 66.

OTTO W. HINN, Cicero; Loyola University School of Medicine, 1912. Died of a heart attack in his office July 20, 1944 at the age of 59.

GEORGE B. KESSLER, retired, Elgin; Lincoln Memorial University Medical Department, Knoxville, Tennessee, 1899. Died July 28, 1944 at the age of 79.

AUGUST E. LUNDGREN, Chicago; Chicago College of Medicine and Surgery, 1905. Had practiced medicine in Chicago nearly 40 years. For 38 years he was an examiner for the Metropolitan Life Insurance Company. Died July 27, 1944 at the age of 71.

CLARENCE J. McMULLEN, formerly of Chicago; University of Illinois College of Physicians and Surgeons, 1912. Assistant professor of medicine at Northwestern University Medical School; on medical staff of Cook County Hospital for several years. Died in Los Angeles recently at the age of 54.

MARIE A. OLSEN, Chicago; Northwestern University Woman's Medical School, 1891; staff, Norwegian-American hospital. Died July 11, 1944, aged 83 years.

JAMES WILLIAM PARKER, Chicago; University of Illinois College of Medicine, 1920. Practiced medicine in Chicago for 16 years. Died July 16, 1944 at the age of 49.

GEORGE ALPHA POTTER, retired, Danville; Barnes Medical College, St. Louis, Mo. 1903. Had practiced medicine 41 years. Died July 9, 1944 at the age of 68.

HARRY A. RICHTER, Chicago; Northwestern University Medical School, 1923. Associate in Medicine, Loyola University School of Medicine; medical staff, St. Francis, Evanston and Swedish Covenant Hospitals; associate staff, Cook County Hospital. Died July 8, 1944 at the age of 47.

THOMAS HENRY TRAINOR, Maple Park; University of Michigan Medical School, Ann Arbor, Michigan, 1888. Had practiced in Kane County since 1912 and prior to that, at Ransom, Illinois. Died July 9, 1944, aged 83.

WILLIAM FRANKLIN WAGGONER, Carrollton; Barnes Medical College, St. Louis, Mo., 1903. Had practiced

medicine in Carrollton 45 years. Died July 14, 1944 at the age of 77.

FRANK NEWTON WELLS, Pittsfield; Chicago Homeopathic Medical College, 1895. Had practiced in Kirkland for 30 years before making his home in Pittsfield; Died June 27, 1944 at the age of 76.

### QUICK CURE FOR SYPHILIS?

In THE LANCET, 6287; 281 February 26, 1944

For some years after Ehrlich introduced "606" in 1910 it was believed that syphilis could be cured by a few injections of the drug given over a short period. This view was still held in the last war, but it slowly came to be realised that a negative Wassermann reaction and healing of visible lesions did not always mean cure; thereafter, though intensive treatment still had its vogues, a long course of weekly injections of some arsenical compound, together with mercury and later a bismuth preparation, became the standard treatment of early syphilis. In the present war intensive treatment has returned to favour in the United States of America, and on a small scale in this country. Its obvious advantages — rapid control of infection, saving of the patient's time, and elimination of the interruptions in treatment that may arise from the patient's default or other circumstances — are particularly attractive in time of war. But these must be weighed against its inconvenience to the patient and the added risk of toxic reactions.

These developments in antisyphilitic treatment open up a bright vista for the control of syphilis in the near future. But high hopes have often been raised in the past by new treatments for gonorrhea and syphilis, and have as often been dashed; will these prove the happy exception? For the present the War Office does not recommend intensive arsenotherapy as part of the routine treatment of syphilis in British soldiers. In their view it should be used only where standard methods are impracticable, and then with all possible safeguards.

The discoveries of healing science must be the inheritance of all. That is clear. Disease must be attacked whether it occurs in the poorest or the richest man or woman, simply on the ground that it is the enemy; and it must be attacked just in the same way as the fire brigade will give its full assistance to the humble cottage as readily as it will give it to the most important mansion. Winston Churchill, *Lancet*, Mar. 11, 1944.

# P. R. N.

The Jocular Jingles of C. G. F.

by

Charles G. Farnum M. D.

Peoria, Ill.

## THE GOLF SWING.

Oh, a graceful thing  
Is the golfing swing,  
It is poetry put into motion;  
With its ease and grace  
And its rhythmic pace,  
We all follow the game with devotion.  
With fourteen things we must recall,  
We hope so for improvement,  
We glue our eyes upon the ball  
And never turn our head at all;  
It's such a graceful movement.  
We grasp the club so knuckles show,  
We're longing for improvement  
We take our stance with turned out toe  
And start our backswing very slow;  
It's such a graceful movement.  
We waggle while we meditate,  
And pray for some improvement,  
Our heels must bear the body weight,  
We try to keep the left arm straight;  
It's such a graceful movement.  
We never let our shoulder drop,  
Oh, how we crave improvement,  
With straight right leg our backswing stop  
And cock our wrists when at the top;  
It's such a graceful movement.  
We shift our hips and roll our wrist,  
We trust there are improvements,  
And follow through with body twist  
To find the little ball was missed,  
With all our graceful movements.  
Yes the golfing swing  
Is a graceful thing  
With but very few folks who pursue it,  
But our awkwardness  
Makes a sorry mess  
Of each swing the way most of us do it.

✓ ✓

## Cerebellar — Pontine Tumors

This afternoon, rather late,  
There came to my office a young man with a  
very peculiar gait;  
Every time he attempted to walk in a given direc-  
tion

His course assumed a wide right-handed deflec-  
tion.

He couldn't walk straight toward a door  
With an overhead trolley and a semiphore,  
But always circled widely to the right;  
To see his attempts to walk in a straight line was  
a pitiful sight.

While his manner of walking interested me most,  
He had a host

Of other classic symptoms and signs  
That made the diagnosis as plain as an anatomy  
chart of red and blue designs.

It is not the mere fact that I had encountered and  
diagnosed a nice rare cerebellar-pontine tumor  
That has put me in such good humor.

O, No! and also Nay!

It takes more than that to make a perfect day,  
And this is an ultra-colossal, nth power, super-  
perfect day, say I,

For it is the first time in a batch of decades that I  
have found an air-tight alibi

For my most pernicious habit;  
And since it is such an unimpeachable alibi I grab  
it

And with exultation coupled with good grace,  
I shall thrust it in the face

Of every golfing kibitzer

Who has harassed me until I almost had a fit, sir.  
For heretofore the long graceful right-handed  
trajectory of every golf ball I shot,

And which usually landed it over in some neighbor-  
ing lot,

Was considered entirely my fault and I suffered  
much humiliation

Until today, but now I can exultantly deny the  
allegation.

My unconquerable slice is not my fault at all;  
hence my good humor,

The fact being that every golf ball I buy has a  
cerebellar-pontine tumor.

✓ ✓

## THE OLDER ONES

It seems that younger golfing folks  
Insist on taking vicious pokes  
At all the older persons who attempt to  
play the game;

With lordly animosity,  
And often real ferocity,  
They call the older golfing ones the halt, the blind  
and lame.

The young hit balls most viciously,  
They often start auspiciously,  
But end in other fairways or in some far distant  
rough;

Approaching irons are over clubbed  
And all too many shots are dubbed,  
They often hit them much too hard, sometimes not  
hard enough.

(Continued on page 60)

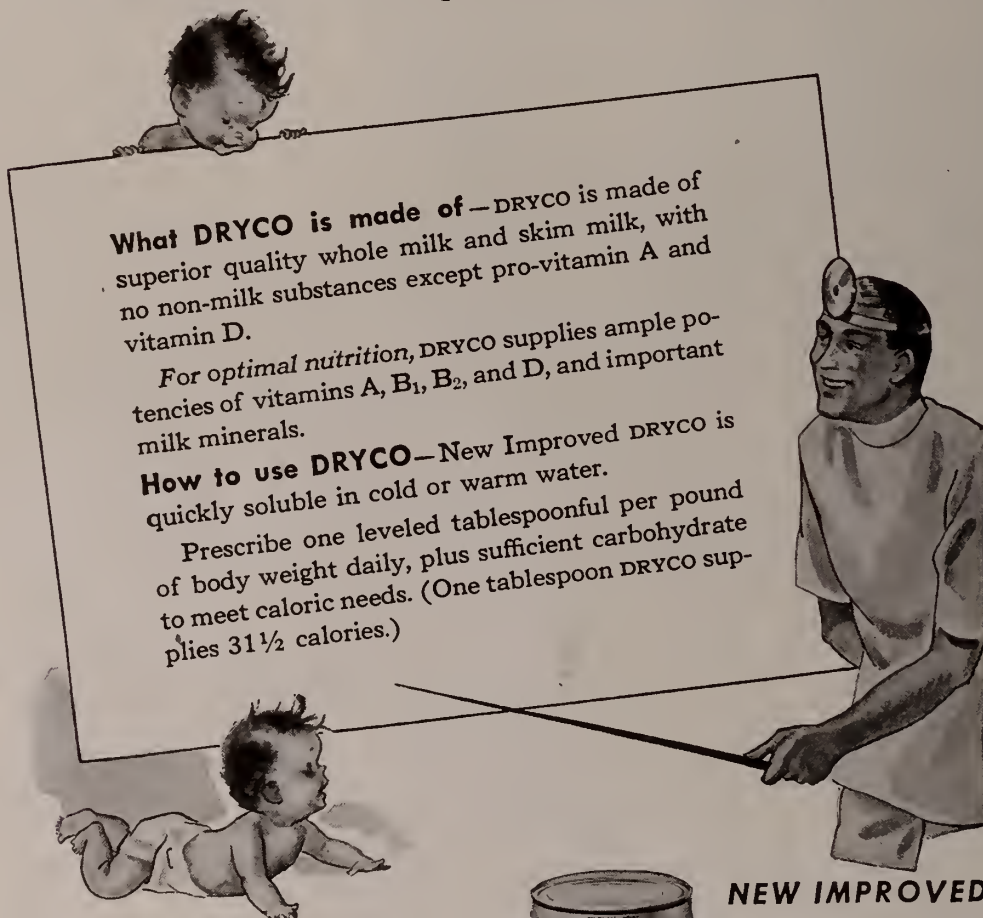


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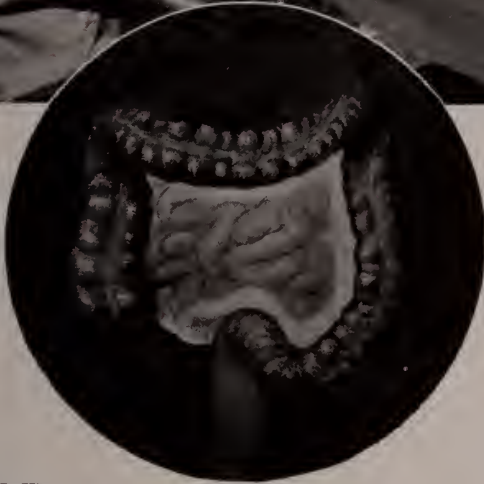


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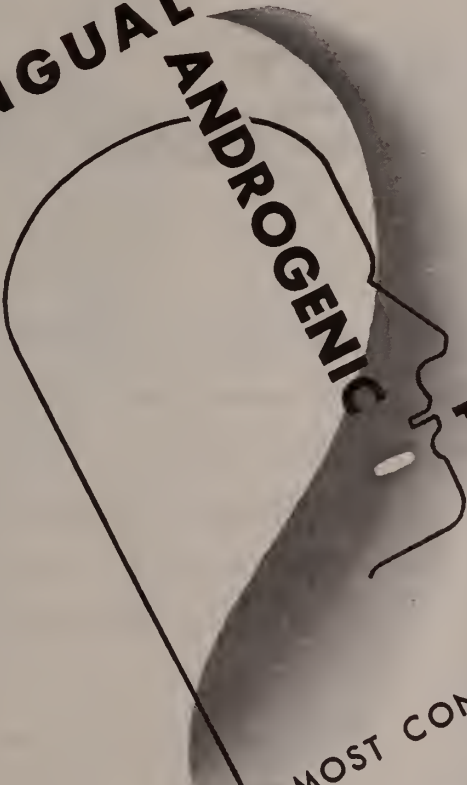
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<sup>1</sup> Biskind, G. R.: Proc. Soc. Exper. Biol. & Med. 43:259, 1940. Burrill, M. W. and Greene, R. R.: Endo. 31:73, 1942.

<sup>2</sup> Lissner, H. and Curtis, L. E.: J. Clin. Endo. 3:389, 1943.

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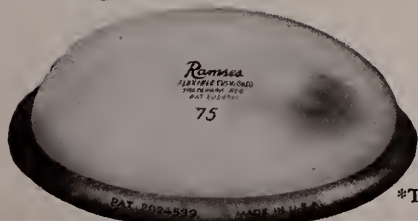
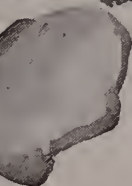


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This list is corrected in accordance with the best information obtainable at the date of going to press. County Secretaries are requested to notify The Journal of any changes or errors.

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Kendall	No Society	
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Lake	Charles K. Petter, Waukegan	Donald B. Douglas, Waukegan
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(Continued on page 58)

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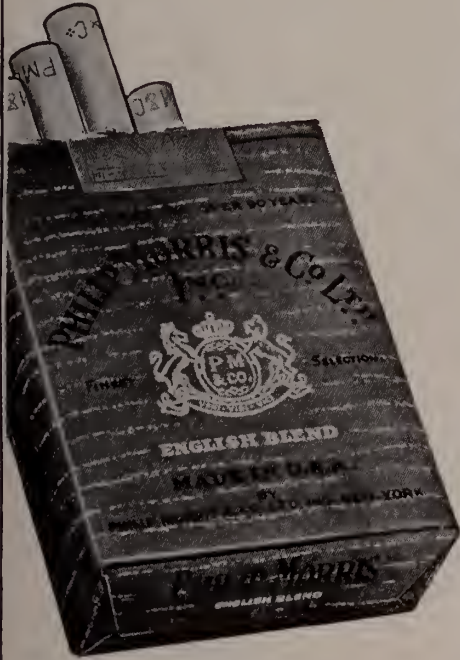
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\**Laryngoscope*, Feb. 1935, Vol. XLV, No. 2, 149-154. *Laryngoscope*, Jan. 1937, Vol. XLVII, No. 1, 58-60. *Proc. Soc. Exp. Biol. and Med.*, 1934, 32, 241. *N. Y. State Journ. Med.*, Vol. 35, 6-1-35, No. 11, 590-592.

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## Book Reviews

**THE AMERICAN ILLUSTRATED MEDICAL DICTIONARY** (Twentieth Edition) W. A. Newman Dorland, A.M., M.D., F.A.C.S., Lieut. Col., M.R.C., U. S. Army, Member of the Committee on Nomenclature and Classification of Diseases of the American Medical Association; Editor of "American Pocket Medical Dictionary"; W. B. Saunders Company, Philadelphia-London; 1944 — Flexible and Stiff Binding; Price: plain \$7.00; thumb-indexed \$7.50.

This, the twentieth edition of an ever popular medical dictionary, is brought up to date with the inclusion of many new medical terms which have recently come into existence. The book naturally is revised and enlarged, with 1668 pages, 885 illustrations, including 240 portraits.

With the constantly increasing medical vocabulary every physician to be up to date should have this handy edition available at all times, and he will use it frequently indeed. Every department of medicine and surgery has been covered, and every page has been revised to contain the many hundreds of medical terms which have been added since the last revision.

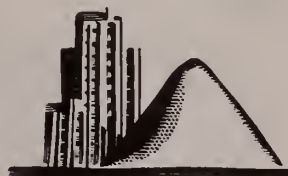
The first edition of the American Medical Illustrated Medical Dictionary appeared in 1900, and from the start it has been a highly popular book, its value increasing with each subsequent edition. There is but fifty cents difference between the plain and thumb indexed book, and what a difference it makes to be able to turn with the aid of the thumb index, to the place where the word will be found quickly. The popularity of this well known medical dictionary will never wane, and it is truly a "must" for any medical library.

(Continued on page 44)

# Hay Fever

## facts and figures

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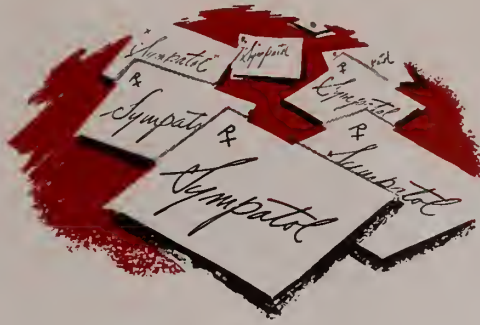
### BOOK REVIEWS (Continued)

**PIONEER OF PEDIATRICS:** Abraham Levinson, M.D., Ass't Professor of Pediatrics, Northwestern University Medical School; Professor of Pediatrics, Cook County Graduate School of Medicine; Attending Pediatrician, Children's Division of the Cook County Hospital; Senior Attending Pediatrician, Sarah Morris Hospital for Children of the Michael Reese Hospital; Senior Attending Pediatrician, Mount Sinai Hospital, Chicago; Froben Press, publishers; 4 St. Luke's Place, New York, New York; 1943; Price \$2.00.

With a foreword by Isaac A. Abt, M.D., this little volume is a second edition of a highly interesting historical review of those who developed the subject of Pediatrics as it is now placed along with other essential specialties in medicine.

In recent years more medical men have become intensely interested in the history of medicine, and that portion pertaining to the pioneering efforts of those who worked earnestly and diligently to bring a new specialty on a higher plane should indeed be of widespread interest in medical circles.

Although Pediatrics as a recognized specialty in medicine is of comparatively recent origin, the author shows his interest in medical research by reference to pediatric information which was publicized as early as 1500 B.C. The outstanding contributors to pediatric knowledge are outlined by periods, up to the 18th and 20th centuries, and are then referred to according to the type of investigations they have made. Finally in the book the author has an interesting chapter on American pioneers of pediatrics, with statements as to the outstanding contributions of these individuals. An extensive bibliography is attached, which shows the amount of time required to prepare the book, and to once more emphasize the fact that the author has long been interested in medical history and has added his own contribution as a permanent record.



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## Books Received

The following books have been received for reviewing, and are herewith acknowledged. This listing should be considered as a sufficient return for the courtesy of the sender. Books that appear to be of unusual interest will be reviewed as space permits each month. Readers desiring additional information relative to books listed, may write the Editor who will gladly furnish same promptly.

**THE DENTAL TREATMENT OF MAXILLO-FACIAL INJURIES;** With Supplementary Material on Cases and Techniques. By W. Kelsey Fry, M. C., M.R.C. S., L.R.C.P., L.D.S., R.C.S., (ENG.) Consulting Dental Surgeon to the Royal Air Force, Consulting Dental Surgeon to the Ministry of Health; Dental Surgeon to Guy's Hospital; P. Rae Shepherd, L.D. S., R.C.S. (ENG.) Dental Surgeon, East Grinstead Macillo-facial Unit; Alan C. McLeod, D.D.S. (Penn.) B.Sc. (Dent.) Toronto, L.D.S., R.C.S. (Eng.) Dental Surgeon, East Grinstead Maxillo-facial Unit. With Foreword by Professor F. R. Fraser, M.D., F.R.C.P., Director General, Emergency Medical Service; and a Section on Fractures of the Middle Third of the Face by A. H. McIndoe, M. S., F.R.C.S., F.A.C.S., Consulting Plastic Surgeon to the Royal Air Force, Surgeon-in-Charge, East Grinstead Maxillo-facial Unit. J. B. Lippincott Company, Philadelphia. Price \$6.50.

**MEDICAL DIAGNOSIS:** By Roscoe L. Pullen, A. B., M. D., Instructor in Medicine, Tulane University of Louisiana School of Medicine; Assistant Clinical Director, Charity Hospital of Louisiana at New Orleans; formerly Fellow in Clinical Endocrinology, Duke University School of Medicine and Duke Hospital, Durham, North Carolina. With a Foreword by John H. Musser, B.S., M.D., F.A.C.P., Professor of Medicine, Tulane University of Louisiana School of Medicine; Senior Visiting Physician, Charity Hospital of Louisiana at New Orleans. 1106 pages with 584 illustrations and 12 colored plates. W. B. Saunders Company, 1944. Philadelphia and London.

**ALL ABOUT FEEDING CHILDREN;** By Milton J. E. Senn, M.D., Associate Attending Pediatrician, New York Hospital, Associate Professor of Pediatrics in Psychiatry, Cornell University Medical College, and Phyllis Krafft Newill. Doubleday, Doran and Company, Inc., Garden City, N.Y. 1944. Price \$2.50.

**QUICK REFERENCE BOOK FOR MEDICINE AND SURGERY.** A Clinical, Diagnostic and Therapeutic Digest of General Medicine, Surgery, and the Specialties, Compiled Systematically from Modern Literature. By George E. Rehberger, A.B., M.D., Twelfth Edition, 1944. J. B. Lippincott Company, Philadelphia, 1944. Price \$15.00.

**TEXTBOOK OF GYNECOLOGY:** By Emil Novak, M.D., F.A.C.S., Associate in Gynecology, The Johns Hopkins Medical School; Gynecologist, Bon Secours (Continued on page 48)

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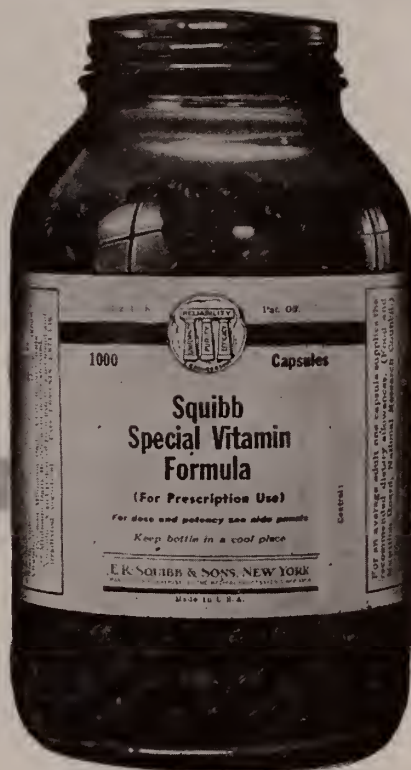
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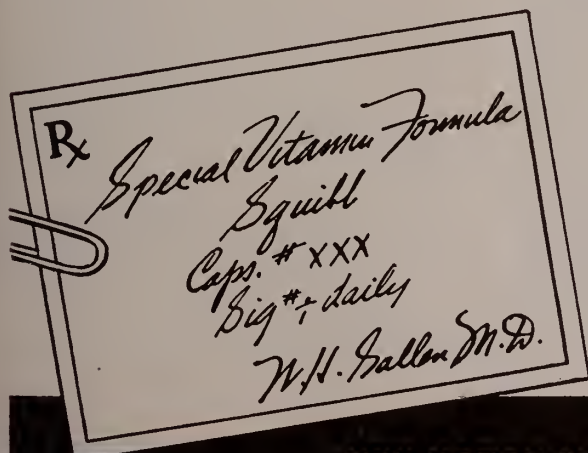
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## BOOKS RECEIVED (Continued)

and St. Agness Hospitals, Baltimore. Second Edition. The Williams & Wilkins Company, 1944. Price \$8.00.

COLLECTED PAPERS OF THE MAYO CLINIC AND THE MAYO FOUNDATION; Edited by Richard M. Hewitt, B.A., M.A., M.D.; A. B. Nevling, M.D.; John R. Miner, B.A., Sc.D.; James R. Eckman, A.B.; and M. Katharine Smith, B.A. Volume XXXV -- 1943. 875 pages with 208 illustrations. Philadelphia and London; W. B. Saunders Company, 1944. Price \$11.00.

UROLOGICAL SURGERY; Austin Ingram Dodson, M.D., F.A.C.S., Professor of Urology, Medical College of Virginia, Richmond, Va. 768 pages; 576 illustrations. The C. V. Mosby Company, St. Louis. 1944. Price \$10.00.

CATARACT AND ANOMALIES OF THE LENS; John G. Bellows, M.D., Ph. D., Assistant Professor of Ophthalmology, Northwestern University Medical School, Chicago. 624 pages; 208 illustrations; 4 color plates. The C. V. Mosby Company, St. Louis, 1944. Price \$12.00.

PRESCRIPTION FOR PERMANENT PEACE: By William S. Sadler, M.D., F.A.P.A., Consulting Psychiatrist, Columbus Hospital. Author, "Theory and Practice of Psychiatry," "The Mind at Mischief," "Living a Sane Sex Life," "Growing Out of Babyhood," etc. Wilcox and Follett Co., Chicago, 1944. Price \$2.50.

TECHNIC OF ELECTROTHERAPY and Its Physical and Physiological Basis. By Stafford L. Osborne, M.S., Ph.D., Assistant Professor, Department of Physical Therapy, Northwestern University Medical School, and Harold J. Holmquest, B.S., B.S. (M.E.) Lecturer in Applied Physics, Department of Physical Therapy, Northwestern University Medical School, Chicago. Charles C. Thomas, Publisher, Springfield, Ill., 1944. Price \$7.50.

FERTILITY IN WOMEN, Causes, Diagnosis and Treatment of Impaired Fertility; By Samuel L. Siegler, M.D., F.A.C.S., Attending Obstetrician and Gynecologist, Brooklyn Women's Hospital; Attending Gynecologist, Unity Hospital; Assistant Obstetrician and Gynecologist, Greenpoint Hospital; etc. With a Foreword by Robert Latou Dickinson, M.D., 194 Illustrations, including 40 subjects in full color on 7 plates. J. B. Lippincott Company, Philadelphia. Price \$4.50.

FERTILITY IN MEN. A Clinical Study of the Causes, Diagnosis, and Treatment of Impaired Fertility in Men. Robert Sherman Hotchkiss, B.S., M.D., Lieutenant Commander, (M.C.) U.S.N.R. (on active service); Assistant Professor of Urology, New York University Medical College, Instructor in Surgery (Urology), Cornell Medical College, etc. With a Foreword by Nicholson J. Eastman, M.D., Chairman, Editorial Committee, National Committee on Maternal Health; Professor of Obstetrics in

(Continued on page 50)



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# APOLARTHON

## BOOKS RECEIVED (Continued)

Johns Hopkins University; Obstetrician-in-Chief to the Johns Hopkins Hospital. 95 Illustrations. J. B. Lippincott Company, Philadelphia, 1944. Price \$3.50.

RED LIGHTS ON THE HORIZON; By H. Ameroy Hartwell, M.D., Bruce Humphries, Inc., Publishers, Boston. Price \$1.00.

PSYCHIATRY FOR NURSES: By Louis J. Karnosh, B.S., Sc.D., M.D., Associate Clinical Professor of Nervous Diseases, School of Medicine, Western Reserve University; Director of Neuropsychiatry, City Hospital Cleveland; and Edith B. Gage, R.N., Formerly Supervisor, Neuropsychiatric Division, City Hospital, Cleveland. In Collaboration with Dorothy Mereness, A.B., M.N., R.N., Instructor of Psychiatric Nursing, Neuropsychiatric Division, City Hospital, Cleveland. Illustrated. Second Edition. The C. V. Mosby Company, St. Louis, Mo. 1944. Price \$2.75.

THE ANALYSIS AND INTERPRETATION OF SYMPTOMS. Edited by Cyril M. Mac Bryde, M.D., J. B. Lippincott Company, Philadelphia, 1944. Price \$4.00.

THE MEDICAL CLINICS OF NORTH AMERICA. The New York Number. Psychosomatic Medicine. W. B. Saunders Company, Philadelphia, 1944.

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## SAYS TONSILLECTOMY DURING AN EPIDEMIC OF INFANTILE PARALYSIS INADVISABLE

In view of the present evidence it would not seem wise to remove tonsils and adenoids when infantile paralysis is present, *The Journal of the American Medical Association* again advises in its May 20 issue. *The Journal* says:

"In his recent review of reports on the relationship between poliomyelitis and tonsil-adenoid operations, R. E. Howard lists no less than 259 cases of poliomyelitis, mostly of the bulbar type [affecting the muscles of breathing], following tonsillectomy [surgical removal of a tonsil] up to within sixty days. These cases were reported from various parts of the United States between 1910 and 1943. The patients were children as a rule not more than 12 years of age. The bulbar type of poliomyelitis was most frequent and caused many deaths. Nearly all these cases occurred in the presence of typical epidemics of poliomyelitis. While control observations are not available showing that poliomyelitis, under the circumstances men-

(Continued on page 52)

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<sup>\*</sup>Romeo, Z. J.: Sulfur and Soap as Effective Prophylaxis Against "Chiggers" (Red Bugs) in the Army, Mil. Surgeon. 90: 437-439 (April) 1942.



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## TONSILLECTOMY (Continued)

tioned, occurs more frequently in children after tonsillectomy and adenoidectomy than in children who have not been subjected to such operations, the clinical observations and impressions indicate that these operations may favor poliomyelitic infection. It would seem wise not to remove tonsils and adenoids when poliomyelitis is prevalent."

## OMISSION

Maxim Gorky relates how, after addressing a peasant audience on the subject of science and the marvels of technical inventions, he was criticized by a peasant spokesman in the following words: "Yes, we are taught to fly in the air like birds, and to swim in the water like fishes, but how to live on the earth we do not know." — *S. Radhakrishnam.*

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## CANCER AND ACCIDENTAL INJURY

Court decisions "that single accidental injuries have caused cancer or can cause cancer should be appealed to tribunals which will give the problems involved adequate competent attention in the light of present knowledge," *The Journal of the American Medical Association* for May 27 advises in an editorial which points out that the theory that cancer can be caused by a single accidental injury is not supported by prevailing scientific knowledge of the cause of cancer. *The Journal* says:

"Under workmen's compensation acts cases involving cancer fall in two groups, one in which the injury is claimed to have caused the cancer and one in which it is claimed that the injury aggravated cancer existing before the injury.

"In respect to the first group, the law appears to be that where 'a normal healthy individual receives in injury by accident in the course of and arising out of his employment and thereafter his health steadily declines and a cancerous condition in the vicinity thereafter causes the (disability or) death of the employee, the causal connection between the injury and the cancer is established and the (disability or) death is compensable under the workmen's compensation act, on the theory that the cancer was caused by such injury.' To prove that the cancer is an 'accidental injury' the following four elements must be present: serious injury or strain, physical connection between the injury or death, proper lapse of time between the injury and the disability or death, and freedom on the part of the employee from cancer at the time of the injury. . . .

"The theory that cancer can be caused by a single accidental injury is not supported by prevailing scientific knowledge of the causation of cancer. Its only support would seem to be the fallacy of 'post hoc ergo propter hoc.' Unfortunately, legal authorities are willing to accept such crude reasoning as if it solved the cancer problem. In spite of the humanitarian intent of the declaration that a single accidental injury can cause cancer, justice has not been done and the public is receiving a wrong impression in regard to the cause of cancer. . . ."

Deaths on the battlefield are not the chief costs of war. Battle deaths comprise only 1 per cent of the armed forces per annum. Armies include about 10 per cent of the population of warring countries. Disease rates are about one per cent per annum. Thus diseases kill ten times more than battles, even in countries at war. Civilian mortality and morbidity are of military importance. The sanitary facilities that protect our population from the diseases that spread through inadequate water, sewage and food hygiene must be maintained and extended. The spread of tuberculosis and other infectious diseases should be prevented wherever practicable. . . . These are all important war measures that should rank with military preparations in our national policy. Lt. Comdr. Emil Bogen, MC, U.S.N.R. *Amer. Rev. of Tbc. Mar. 1944.*

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## SAYS WAR HAS MORE EFFECT ON FUTURE THAN CAN BE MEASURED BY CASUALTIES

Discussing the effect of the war on civilian populations, *The Journal of the American Medical Association* for May 27 points out that in many of the occupied European countries "peace will likely find a materially smaller population than existed before the war. Thus war shakes the biologic foundations of human life and has an even more profound influence on the future than can be measured by the number of casualties."

The appalling effect of the present war on European countries is described in the same issue of *The Journal* by its regular London, England, correspondent who says:

After the last great war it was found that "indirect war losses" greatly exceeded direct casualties. The indirect losses included the children who would have been born but for the war, the children dying in infancy as a result of wartime increased infant mortality and the civilians who died as a result of wartime epidemics and a wartime increase in the general death rate. For the present war the figures are as yet too incomplete to assess fully "the indirect war losses" in occupied Europe. But enough material continues to be collected to give some idea of their appalling extent. In France the birth rate for 1940 and 1941 was 10 per cent below the previous low birth rate. This meant in the two years 120,000 unborn children. The condition in Belgium is worse: 20 per cent below the pre-war level. The Belgian urban population subsists on

about one third of the minimum diet prescribed by the League of Nations. The Netherlands, on the other hand, seems to have been spared such great losses.

Nor have the Axis powers escaped. In Rumania the birth rate in 1941 was 15 per cent below the prewar level. Italy in 1941 and 1942 was reduced 13 per cent in its birth rate, and Germany in the three years 1940-1942 was reduced 14 per cent. The German deficiency has now risen to 25 per cent. These are only partial figures. The total of Europe's "unborn children" must now number several millions.

To this loss must be added that due to increased infant mortality. In Germany this was 6 per cent higher in 1940 and 1941 than in the two preceding years. In Belgium the increase was 13 per cent. Tuberculosis takes a great toll of Belgian children. After one winter of German occupation the deaths from tuberculosis increased 57 per cent and the great majority of the new victims were children. In France the 1940-1942 infant mortality was over 20 per cent increased. In refugee camps children were reduced to 900 calories a day even in 1941. Eight million children were without shoes; 75 per cent of school children lost weight during 1941. They are over a year behind children of normal development. Eighty per cent of French babies suffer from rickets. Nearly all the skin tests performed on Paris children showed tuberculosis definitely. In Italy infant mortality in 1941 was 18 per cent higher than in 1939. In the Netherlands the increase was 20 per cent, though the Dutch are

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still the best off in occupied Europe. The infant mortality is the only numerical measure available for health trends. But, as the International Labor Office points out in its report, the brunt of deterioration in diet is borne by adolescent children, who are especially susceptible to tuberculosis. The average town child in occupied Europe is underfed, short of vitamins and too hungry to concentrate. The father may be dead, a prisoner of war or a deportee, and the child may spend the day in search of food, too weak for exertion, without soap to keep clean. It is on this decimated enfeebled generation that the reconstruction of Europe will depend.

Stray scraps of news throw light on the terrible conditions. Bread is "diluted" with hydrolyzed straw or chestnut meal from which the oil has been extracted in three months. . . . The Dutch are eating dog and cat. Last year in France the average family got fish once meat. . . .

## ERGOTAMINE TARTRATE MAY BE OF VALUE IN TREATMENT OF "BATTLE REACTIONS"

On the basis of a limited experience it is felt that ergotamine tartrate is of some value in treating the reactions to battle, Robert G. Heath, M.D., Past Assistant Surgeon (R), and Flor-

ence Powdermaker, M.D., Surgeon (R), U. S. Public Health Service, Gladstone, N. J., report in *The Journal of the American Medical Association* for May 13. Ergotamine tartrate is a substance related to ergot.

The term "battle reaction" is used by the two physicians to designate the reactions of those whose adjustment had been satisfactory until subjected to a battle experience which proved overwhelming. The reaction, in contrast to a true neurosis, is regarded primarily as a physical disturbance, the result of inordinate fear causing pronounced sympathetic nervous system overactivity. The two investigators say a cycle is established as a result of this autonomic imbalance. Physical changes primarily and, to a lesser degree, superficial mental mechanisms increase the patient's sensitivity to fear, causing the reaction to intensify and persist. Ergotamine tartrate, given by mouth for 10 days, tends to counteract the increased amount of epinephrine produced by fear. It has been given to 20 merchant seamen. The investigators hope that other physicians working with similar types of patients will continue the experiments.

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## THE PRINCIPLES OF RE-EDUCATION IN BREATHING

Basil Kiernander, M.B., B.S., M.R.C.P., D.M.R.E. Assistant Physician, Department of Physical Medicine, Radcliffe Infirmary, Oxford; Honorary Consultant in Physical Medicine, Horton General Hospital, Banbury, and Abingdon Hospital; Flt. Lt., R.A.F.V.R. and Lilian B. Pollard, T.M.M.G., Senior lecturer in Physiotherapy, University of Toronto In *THE BRITISH JOURNAL OF PHYSICAL MEDICINE AND INDUSTRIAL HYGIENE*, 7; 2; 39 March-April, 1944

Although breathing is a vital function of the body it is uncommon to find that the mechanism provided for that purpose is used to its fullest extent. Like most body mechanisms, the respiratory apparatus works best with the animal in the four-footed position. When man adopted the upright posture, this apparatus came into conflict with the force of gravity and for this it is ill-fitted. The result is apparent in the faulty, incomplete respiration of the so-called normal individual. Even a group of young recruits for the Forces provides comparatively few examples of a habitually full easy respiration. That is to say, in most cases the vital capacity (the maximum intake of oxygen and the maximum output of carbon dioxide) is reduced with a corresponding impairment of all bodily functions. It is not too much to claim that, in the absence of any organic disease, the inspiring outlook of those who are "on top of their form" can only be acquired when the posture is balanced and the respiratory mechanism is functioning to its maximum.

### RESPIRATORY CONTROL

In giving instruction in breathing exercises it is necessary to remember that several deep respirations will disturb the carbon dioxide content of the blood upon which the respiratory control so largely depends. It is wise, therefore, to intersperse the deep respirations with the mobility and abdominal exercises so that a further supply of carbon dioxide is forthcoming and the balance maintained.

Tourist: "Don't stand there like a fool, man. Run and bring the doctor."

Small town dweller: "Sorry, Mister, that's him you've just run over."

Policeman (to a gentleman staggering home at 3 a.m.): "Where are you going at this time of night?"  
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Iodine solutions, applied to the skin, continue their bactericidal action for several hours. This is important in surgery where it is desirable that a bactericidal barrier be maintained on the skin to minimize danger of pathogenic organisms from the air.

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Iodine's antiseptic value is in no way affected by the presence of alcohol.

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WOUNDED IN THE SOVIET UNIONA. N. Sukhov In AMERICAN REVIEW OF  
SOVIET MEDICINE, 1; 4; 293 April, 1944

The constitution of the U.S.S.R. grants every citizen the inalienable right to security in old age and during illness or disability. Under these provisions the war wounded who cannot be returned to the front are granted pensions not only for themselves but also for their families. The law divides veterans into three categories: 1) totally handicapped persons who require hospitalization; 2) totally handicapped persons who do not require hospitalization; 3) persons rendered unfit for their former occupations but capable of easier work with a shorter working day. Pensions are also graduated to conform with rank. A Medical-Labor Commission consisting of medical specialists and trade union representatives functions in every hospital, reviews and certified each case.

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## P. R. N. (Continued)

The old ones shoot consistently  
And play right on persistently  
The scores when they are counted show scant  
preference for years;  
So we conclude this golfing game,  
Which rarely brings us golfing fame,  
Requires but little muscle but a lot between the ears.

1 1

## MY VICTORY GARDEN

As I listened to the propaganda for victory gardens my patriotic urge to be one of the twenty-two million grew apace until I went into the back yard, viewed the beautiful blue lawn, and without a qualm staked out a large and pretentious garden plot.

But when the spading of this got under way I found that my patriotic urge bore an inverse ratio to my physical ability. The greater the back-ache became the more the urge dwindled and soon the staked out area was markedly reduced.

But I had a garden! Planted in neat rows the succulent young plants soon peered through the ground to bolster my pride of accomplishment and give me many a satisfying thought of garden fresh vegetables and of a patriotic duty well done.

Then came the rabbits! How many I do not know but when their work was done there were no cabbages, no beans, no peas, no corn, no lettuce. Only sickly rows of stiff little stubs marked the location of my erstwhile lovely garden. To replant seemed futile for it would only invite a reenactment of the sad experience and I could imagine these same rabbits lurking in the bushes waiting for me to do that very thing.

But a mind trained in the sciences is not likely to be discouraged easily and a way out usually may be found. So I turned my attention to what I had observed rabbits do not eat. These things I have now planted in my garden and I thumb my nose at the rabbits.

So now my garden plot is planted in dandelions, burdock, crab grass and dog fennel in neat and stately rows. Let the rabbits starve!



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RESULTS: Immediate improvement—  
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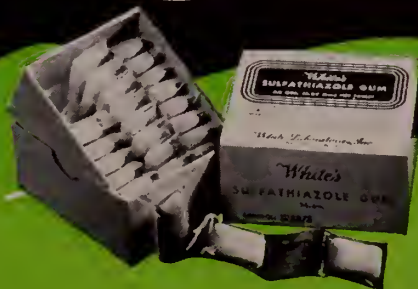
This actual case report typifies the response to this new, effective method of providing local chemotherapy in oropharyngeal infections. Further indications include acute tonsillitis and pharyngitis, septic sore throat, infectious gingivitis and stomatitis caused by sulfonamide-susceptible microorganisms. Also suggested in the prevention of local infection secondary to oral and pharyngeal surgery.

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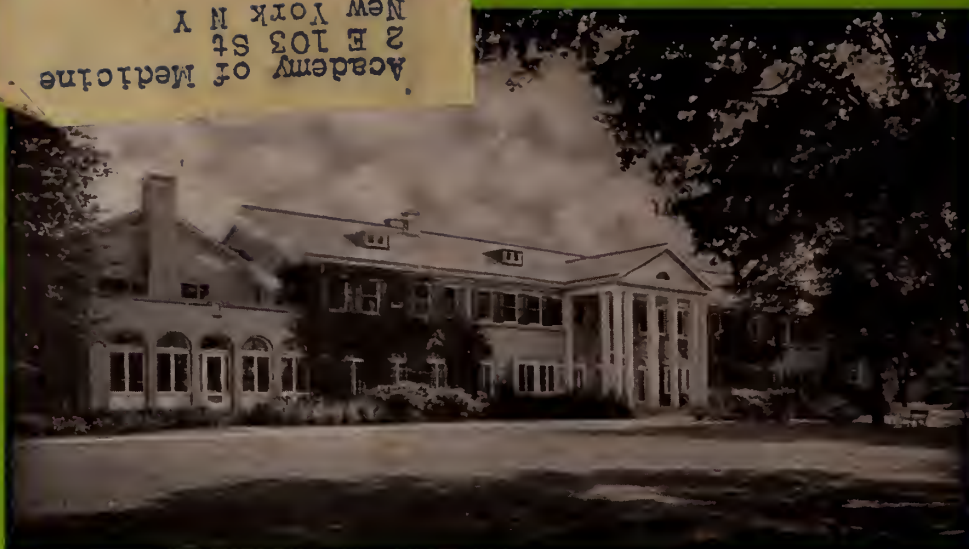
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*September, 1944*

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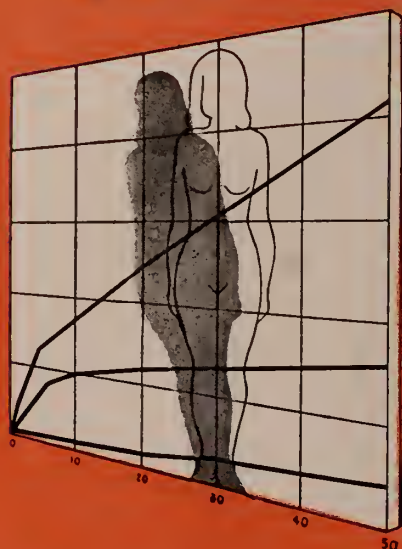
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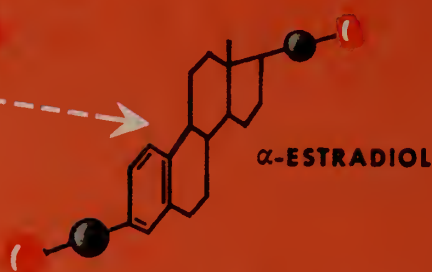
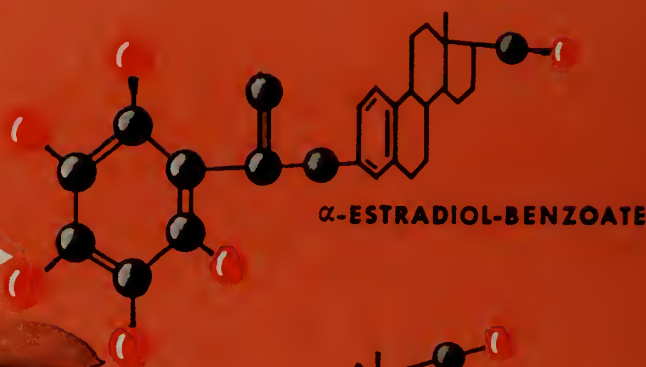
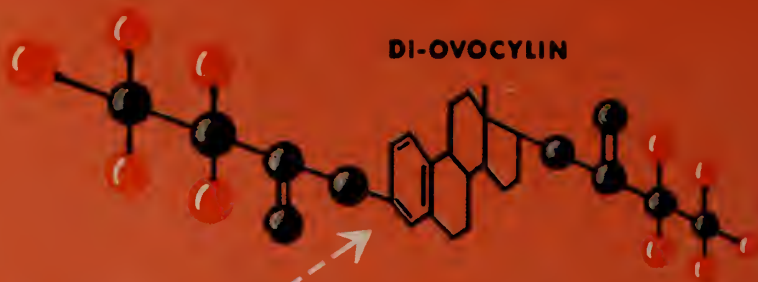
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CANADIAN BRANCH: MONTREAL, CANADA

*same potency...*

*new convenience*

# OL-VITUM

## now in tablet form

You know, Doctor, what a potent ally you have in I. V. C. Ol-Vitum—the "8-Vitamin" Capsules. *Now* you can have the same potency, the same all-around completeness of Ol-Vitum in *tablet* form, too.

Each individual Ol-Vitum Tablet is scientifically sealed in sanitary cellophane squares

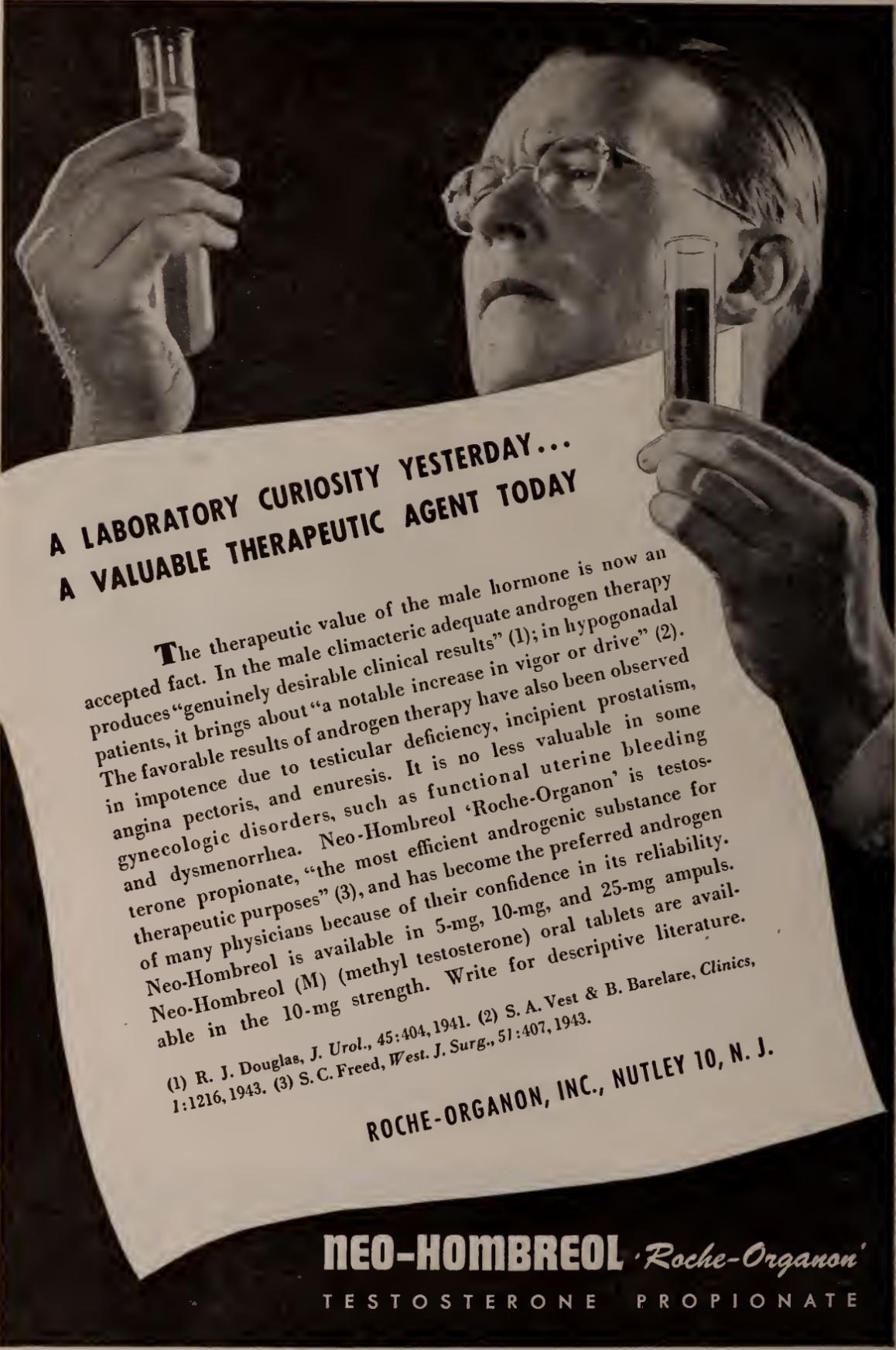
—10 tablets to a strip. A convenient, clean way for patients to carry a supply of balanced vitamins in purse or pocket.

Ol-Vitum Tablets are a product of "The House of Vitamins"—The International Vitamin Corporation, largest exclusive manufacturer of vitamins and vitamin-products.



# OL-VITUM

THE "8-VITAMIN" TABLET OR CAPSULE



**A LABORATORY CURIOSITY YESTERDAY...  
A VALUABLE THERAPEUTIC AGENT TODAY**

The therapeutic value of the male hormone is now an accepted fact. In the male climacteric adequate androgen therapy produces "genuinely desirable clinical results" (1); in hypogonadal patients, it brings about "a notable increase in vigor or drive" (2). The favorable results of androgen therapy have also been observed in impotence due to testicular deficiency, incipient prostatism, angina pectoris, and enuresis. It is no less valuable in some gynecologic disorders, such as functional uterine bleeding and dysmenorrhea. Neo-Hombreol 'Roche-Organon' is testosterone propionate, "the most efficient androgenic substance for therapeutic purposes" (3), and has become the preferred androgen of many physicians because of their confidence in its reliability. Neo-Hombreol is available in 5-mg, 10-mg, and 25-mg ampuls. Neo-Hombreol (M) (methyl testosterone) oral tablets are available in the 10-mg strength. Write for descriptive literature.

(1) R. J. Douglas, *J. Urol.*, 45:404, 1941. (2) S. A. Vest & B. Barellare, *Clinics*, 1:1216, 1943. (3) S. C. Freed, *West. J. Surg.*, 51:407, 1943.

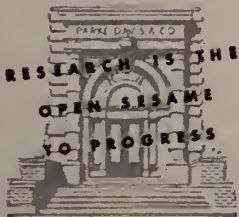
**ROCHE-ORGANON, INC., NUTLEY 10, N. J.**

**NEO-HOMBREOL 'Roche-Organon'**

TESTOSTERONE PROPIONATE



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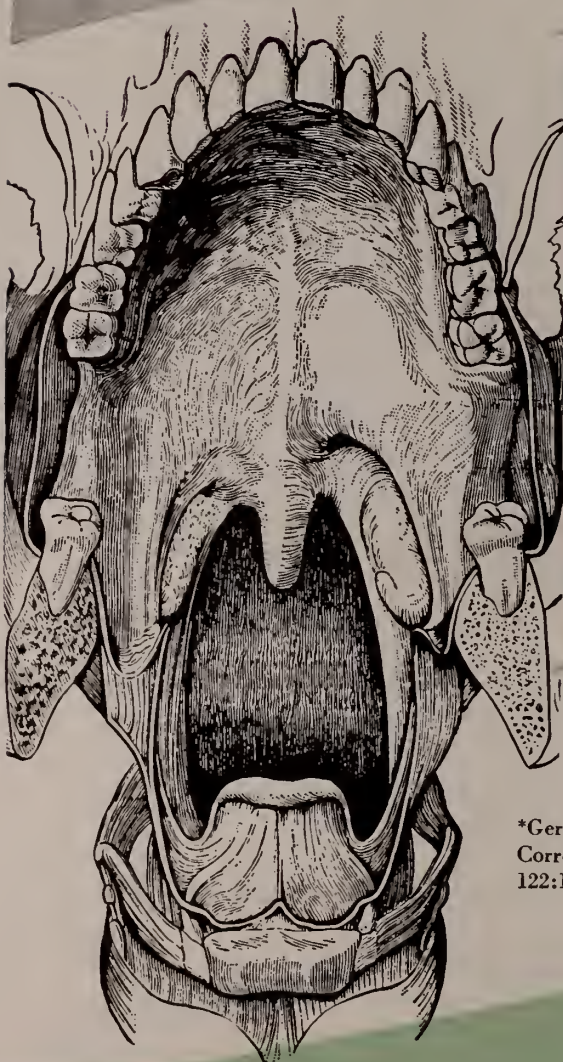


*In arsenical research* we are seeking compounds which offer promise of greater effectiveness against the spirochete of syphilis with less toxicity to the patient . . . a syphilis therapy that will be even better than the dramatically successful Mapharsen\* treatment of today. But that is not all we are looking for . . . we are making an exhaustive study of arsenic compounds, searching for the one that may bring amebic dysentery and other diseases of protozoan origin under control, and open up new fields of effective therapeutics.

\*Trade-mark Reg. U. S. Pat. Off.

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"By means of the chewing gum method, I believe the concentration of sulfathiazole can be maintained in the mouth and pharynx for sometime, since the solubility of the drug is constant. It is well known that gargles do not reach the nasopharynx, while swallowed saliva does."\*



\*Gertner, Lt. J., M.C., A.U.S.:  
Correspondence, J.A.M.A.  
122:1204, 1943.

# Local Chemotherapy with

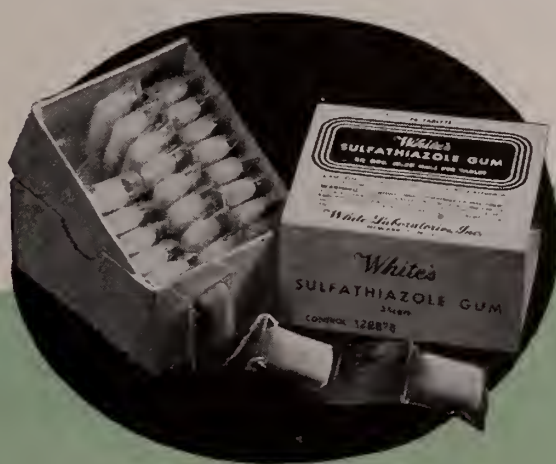
*White's*

## SULFATHIAZOLE GUM

Chewing even a single tablet provides a high, *sustained* salivary concentration of *locally active* sulfathiazole, averaging 70 mg. per cent over a full hour's chewing. Yet *blood levels* produced by even maximal dosage—and even in children—are for the most part too low to be quantitatively measurable. More effective *local* chemotherapy is thus made possible, while *systemic* toxic reactions are virtually obviated.

**INDICATIONS:** Septic sore throat, acute and chronic tonsillitis, pharyngitis, infectious gingivitis and stomatitis, non-epidemic infectious parotitis, periton-sillitis—caused by sulfonamide-susceptible micro-organisms. Preliminary studies indicate that Vincent's disease heals within 48-72 hours following start of treatment.

**DOSAGE:** One or two tablets of White's Sulfathiazole Gum chewed *for one-half to one hour* at intervals of one to four hours, depending on severity of condition. Should patients (children, for instance) find difficulty in chewing a single tablet for one-half to one hour, as many tablets as desired may be success-fully chewed during the period.



*Available*  
IN PACKAGES OF 24 TABLETS,  
SANITAPED IN SLIP-SLEEVE  
PRESCRIPTION BOXES  
—ON PRESCRIPTION ONLY.

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Pharmaceutical Manufacturers, NEWARK 7, N. J.

# Paredrine-Sulfathiazole

*Provides all three:*

- ① Prolonged Bacteriostasis
- ② Non-Stimulating Vasoconstriction
- ③ Therapeutically Ideal pH



(1) *Prolonged bacteriostasis.* Paredrine-Sulfathiazole Suspension is not a solution, but a *suspension* of Micraform crystals of free sulfathiazole. These crystals spread rapidly and evenly over the nasal mucosa, forming a fine frosting of sulfathiazole. This frosting does not quickly wash away, but remains on those areas where ciliary action is impaired by infection—and thus provides prolonged bacteriostasis *precisely where it is needed most.*

While crystals have been observed on *infected* mucosa many hours after instillation, they are quickly swept from *uninfected* ciliated areas. (The Suspension does not impair normal ciliary action.)



(2) *Non-stimulating vasoconstriction.* 'Paredrine' exerts a shrinking action more rapid, complete and prolonged than that of ephedrine in equal concentration. But it does not produce ephedrine-like central nervous side effects, such as nervousness, restlessness and insomnia.

## THE UNIQUE VASOCONSTRICTOR-

# Suspension



(3) *Therapeutic pH.* The pH range of Paredrine-Sulfathiazole Suspension—unlike that of the highly alkaline solutions of sodium sulfathiazole—is slightly acid (5.5 to 6.5), and identical with the pH of secretions in the healthy nose.

In 191 cases reported in the literature, there was not a single instance of burning, stinging, hyperemia or tissue damage from the use of Paredrine-Sulfathiazole Suspension.

(Sulman, L. D., 1943; Silcox, L. E.  
and Schenck, H. P., 1942.)

*Smith, Kline & French Laboratories, Philadelphia.*



## SULFONAMIDE COMBINATION

**"WAS I LUCKY—HAVING A DOCTOR WHO KNEW  
ONLY CARITOL GIVES VITAMIN A AND CAROTENE  
WITH POTENCY FULLY PROTECTED!"**



● Only in Caritol is the potency of *both* Vitamin A and carotene protected against deterioration from heat, light and air . . . in vitro and in vivo!

For infants and children: Caritol with Vitamin D, liquid. (15,000 U.S.P. units Vitamin A activity, 3000 U.S.P. units Vitamin D per gram). Bottles of 10 and 50 cc. Also "A and D" Capsules and "High Potency A" Capsules.

**Caritol** with fully protected A potency

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## Safe, Circulatory Stimulation

Sympatol is found to be remarkably effective as a peripheral circulatory stimulant in most cases of hypotension.

Without adverse effect on the central nervous system, it increases the systolic blood pressure without appreciably altering the diastolic pressure and pulse rate. Thus, safely, the quantity of blood flow is increased—through the entire vascular system.

# Sympatol



*A safe, peripheral circulatory tonic, without appreciable direct cardiac effects, central nervous stimulation or anxiety symptoms. Available as a 10% solution in 30 cc. bottles and as 100 mg. tablets in bottles of 50.*

*Trade Mark Sympatol Reg. U. S. Pat. Off.*

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## WHEN THE BLOOD DONOR NEEDS

# Iron



After the blood donation has been made, in most instances erythrocyte regeneration takes place with sufficient rapidity so as to cause no discomfort or impairment to health. A similar observation has been made concerning subsequent donations when spaced after intervals.

It has been noted, however, that the administration of ferrous iron markedly hastens the production of blood cells and hemoglobin formation when the patient is not quite up to par. Convalescence exhibiting symptoms of secondary anemia is often hastened by use of one of the following Squibb hematinic products.

**Hebulon\* Capsules**—because of their content of iron, liver extract and vitamin B complex, provide factors often simultaneously required by the patient with secondary anemia. Each easy-to-swallow gelatin capsule contains 2 grains exsiccated ferrous sulfate (approx. 40 mg. iron); 50 U. S. P. units of Vitamin B<sub>1</sub>; and the B Complex Factors present in the liver extract (derived from 16 Gm. fresh liver.) Supplied in bottles of 100, 500 and 1000 capsules.

**Tablets Ferrous Sulfate Exsiccated Squibb**—where iron alone is indicated. Contain iron in ferrous form—shown in numerous clinical studies to be more effective in smaller dosage than other forms of iron and to have fewer undesirable side-

effects. Supplied in 3-grain enteric-coated tablets in bottles of 100 and 1000. Three grains is the U. S. P. dose for exsiccated ferrous sulfate as compared to 5 grains of the hydrated salt. Squibb has always used the exsiccated form.

**Capsules Ferrous Sulfate with B<sub>1</sub> Squibb**—for prevention and treatment of secondary anemia—in patients with anorexia or other manifestation of Vitamin B<sub>1</sub> deficiency. Each capsule contains 3 grains of ferrous sulfate exsiccated and 1 mg. of thiamine hydrochloride (333 U. S. P. units of Vitamin B<sub>1</sub>). Supplied in bottles of 100 and 1000 capsules.

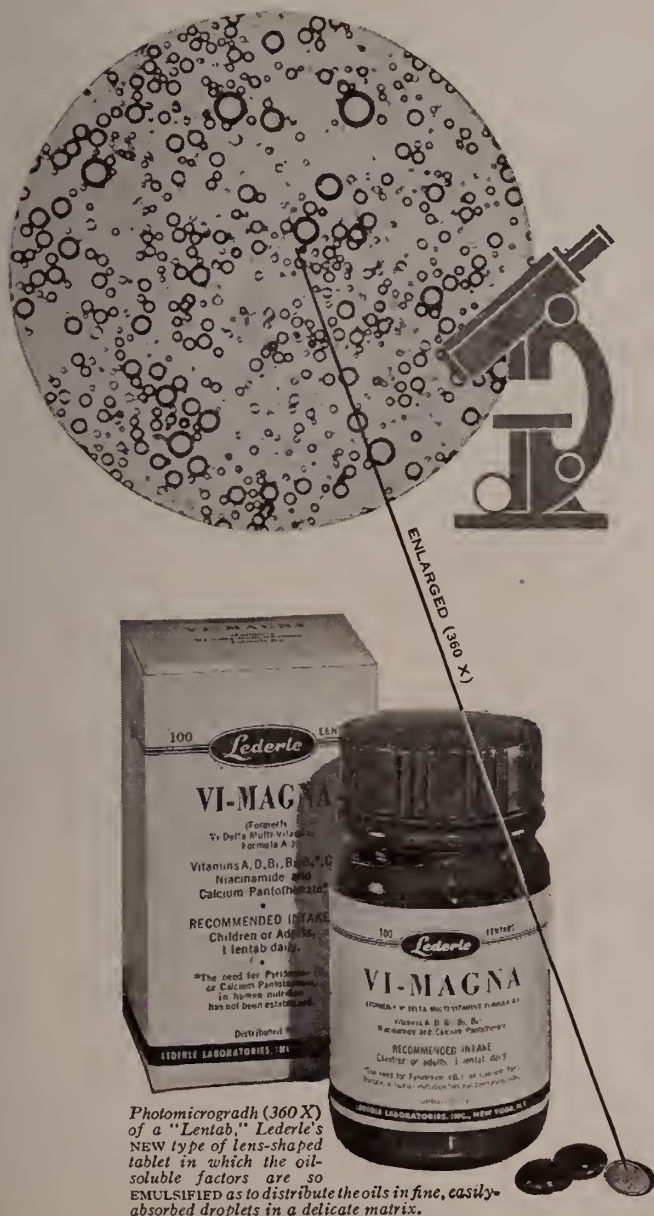
\*"Hebulon" (Reg. in U. S. Pat. Off.) is a trade-mark of E. R. Squibb & Sons.

*For literature write the Professional Service  
Dept., 745 Fifth Ave., New York 22, N. Y.*

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*Manufacturing Chemists to the Medical Profession Since 1858*

# Multi-vitamins in internal medicine



## Lederle VI-MAGNA LENTABS EIGHT VITAMINS

THE PATIENT WHO CONSULTS his physician for a variety of vague ailments often is exhibiting mild signs of vitamin lack. Large portions of the population respond favorably to supplementation of the diet with vitamins. Multi-vitamin deficiency may occur during convalescence from infections, particularly those associated with gastrointestinal signs and symptoms. Secondary infections are common in the presence of vitamin deficiency. Multi-vitamin deficiency occurs inevitably where there is marked wastage or loss of vitamins by diarrhea, vomiting or external drainage of a viscus. Such patients invariably lose large quantities of vitamins and frequently need their administration both orally and parenterally.

### VI-MAGNA LENTABS Lederle

Each LENTAB supplies a full daily supplement of essential vitamins:

Vitamin A.....	5,000 U.S.P. XII Units
Vitamin D.....	500 U.S.P. XII Units
Ascorbic Acid (C).....	30 mg.
Thiamine HCl (B <sub>1</sub> ).....	3 mg.
Riboflavin (B <sub>2</sub> ).....	2 mg.
Niacinamide.....	20 mg.
Calcium Pantothenate.....	10 mg.
Pyridoxine HCl (B <sub>6</sub> ).....	0.2 mg.

VI-MAGNA LENTABS are thin, easily swallowed, gelatin-coated tablets. The fat-soluble vitamins are emulsified in a gelatin matrix containing the water-soluble vitamins. This improved structure releases the vitamins slowly so that after-taste is abolished.

VITAMIN DEFICIENCY IS USUALLY  
MULTI-VITAMIN INSUFFICIENCY

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# INC.

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# 3 Indications

CONSTIPATION

COLITIS

DIARRHEA



## One Therapy

Zymenol is indicated in either the irritable, unstable or stagnant bowel because it is a *natural approach* to the two basic problems of Gastro-Intestinal Dysfunction;

#### ASSURES NORMAL INTESTINAL CONTENT

... through BREWERS YEAST ENZYMATIC ACTION\*

#### RESTORES NORMAL INTESTINAL MOTILITY

... with COMPLETE NATURAL VITAMIN B COMPLEX\*

This twofold natural therapy restores normal bowel function *without* catharsis, artificial bulkage or large doses of mineral oil. Cannot affect vitamin absorption. Avoids leakage.

Teaspoon Dosage

Economical

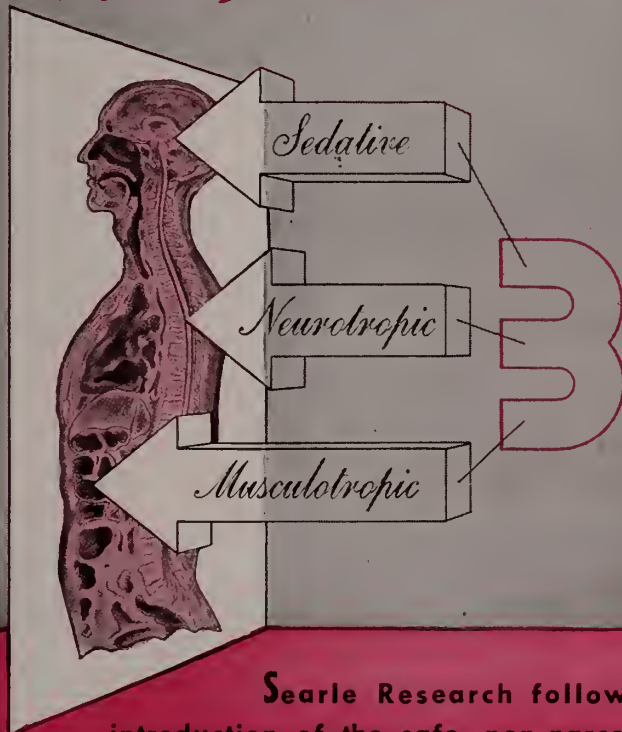
Sugar Free

\*Zymenol contains Pure Aqueous Brewers Yeast (no live cells)

Write For *FREE* Clinical Size

OTIS E. GLIDDEN & CO. INC. EVANSTON ILLINOIS

*New Searle Development*  
*provides 3 pronged attack on SPASM*



Searle Research follows up its introduction of the safe, non-narcotic, antispasmodic, Pavatrine, with the new three-fold-action product

*pavatrine with phenobarbital*

**CLINICAL ADVANTAGES:** Increased and more prolonged spasmolytic action provided through addition of mild central nervous sedation (phenobarbital) to the pronounced musculotropic and neurotropic antispasmodic action of Pavatrine.

**INDICATIONS:** Gastrointestinal spasm, dysmenorrhea, urinary bladder spasm.

• Each sugar-coated tablet contains 125 mg. (2 gr.) of Pavatrine (Searle) with 15 mg. (¼ gr.) of Phenobarbital. Supplied in bottles of 100 and 1000 tablets.

**G·D·SEARLE & CO.**

ETHICAL PHARMACEUTICALS SINCE 1888  
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**S E A R L E**  
 RESEARCH IN THE SERVICE OF MEDICINE

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Edema 0.8 (from PHILIP MORRIS Cigarettes) vs. Edema 2.7 (from ordinary cigarettes) clearly reveals the wide difference in irritation caused by different cigarettes.

Equally conclusive are clinical tests.\*\* They have proved over and over again that PHILIP MORRIS

Cigarettes are definitely and measurably less irritating to the nose and throat.

Doctor, may we urge you to make your own tests . . . on smokers whose throats are irritated from smoking . . . and see PHILIP MORRIS' superiority for yourself!



**0.8 . . .** Average edema upon instillation of smoke solution from PHILIP MORRIS CIGARETTES.



**2.7 . . .** Average edema upon instillation of smoke solution from ORDINARY CIGARETTES.

# PHILIP MORRIS

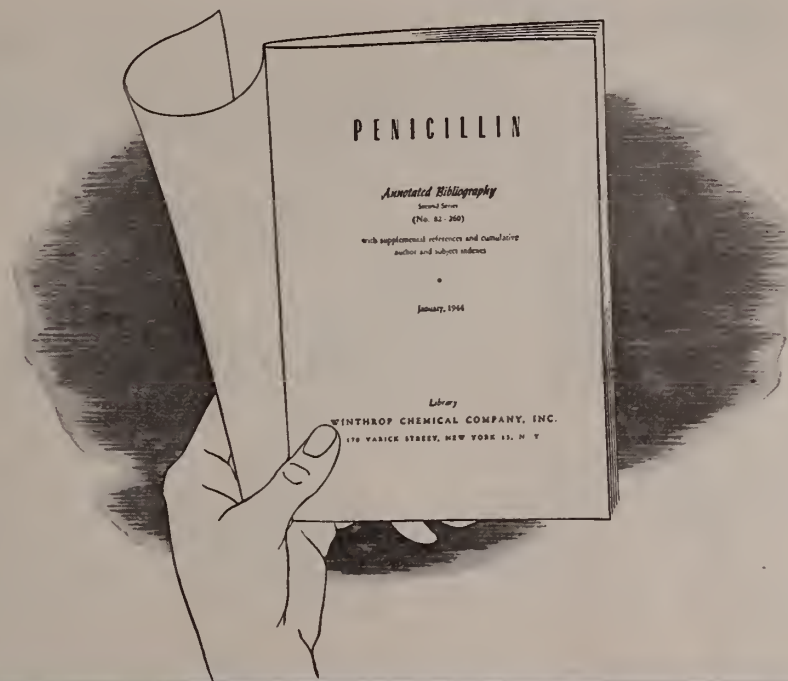
Philip Morris & Company, Ltd., Inc., 119 Fifth Avenue, New York



\**Proc. Soc. Exp. Bio. and Med.*, 1934, 32, 241-245.

\*\**Laryngoscope*, 1935, XLV, No. 2, 149-154.

TO THE PHYSICIAN WHO SMOKES A PIPE: We suggest an unusually fine new blend—Country Doctor Pipe Mixture. Made by the same process as used in the manufacture of Philip Morris Cigarettes.



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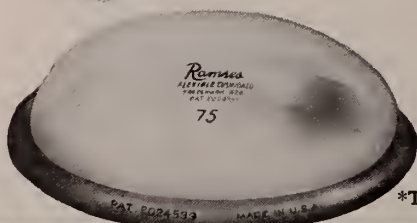
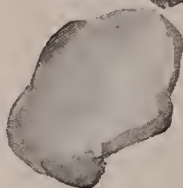


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The process used in manufacturing the "RAMSES"\* Flexible Cushioned Diaphragm produces a dome which is soft and pliable and can best be described as being as smooth as velvet.

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FLEXIBLE CUSHIONED  
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More than so-termed tonics and restoratives, Ovaltine can materially shorten the period required for the return of strength and vigor following recovery from infectious or prolonged illnesses. During the acute stages of febrile diseases, when the patient's nutritional intake is low, while requirements are higher than normal, many metabolic deficits are developed. These can be made good only by a high intake of essential nutrients during the recovery period, for only

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THE WANDER COMPANY, 360 North Michigan Avenue, Chicago 1, Illinois



## *Ovaltine*

Three daily servings (1½ oz.) of Ovaltine provide:

	Dry Ovaltine	Ovaltine with milk*		Dry Ovaltine	Ovaltine with milk*
PROTEIN . . . .	6.0 Gm.	31.2 Gm.	VITAMIN A . . . .	1500 I.U.	2953 I.U.
CARBOHYDRATE .	30.0 Gm.	62.43 Gm.	VITAMIN D . . . .	405 I.U.	480 I.U.
FAT . . . . .	2.8 Gm.	29.34 Gm.	THIAMINE . . . .	.9 mg.	1.296 mg.
CALCIUM . . . .	.25 Gm.	1.104 Gm.	RIBOFLAVIN . . . .	.25 mg.	1.278 mg.
PHOSPHORUS . .	.25 Gm.	.903 Gm.	NIACIN . . . . .	3.0 mg.	5.0 mg.
IRON . . . . .	10.5 mg.	11.94 mg.	COPPER . . . . .	.5 mg.	.5 mg.

\*Each serving made with 8 oz. of milk; based on average reported values for milk.

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"Headache is probably the most common complaint in medicine" according to Simons and Wolff.<sup>1</sup>

Prompt and effective relief of the innumerable nonorganic types is dependably achieved with 'Tabloid' 'Empirin' Compound through the synergistic analgesic action of acetophenetidin and acetylsalicylic acid. A small quantity of caffeine is included for its antidepressant effect. Purity of ingredients and careful compounding insure the rapid, dependable effect that makes 'Tabloid' 'Empirin' Compound the analgesic of choice.

1. Simons, D. J., and Wolff, H. C.: *Med. Clin. N. Am.*, Phila., W. B. Saunders Co., p. 440-441, 1944.



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### **BOTTLES OF 100 AND 500**

Also 'Tabloid' 'Empirin' Compound with  
Codeine Phosphate, gr.  $\frac{1}{8}$ , gr.  $\frac{1}{4}$  and gr.  $\frac{1}{2}$ .

# Offers Solution of the Tuberculosis Problem...

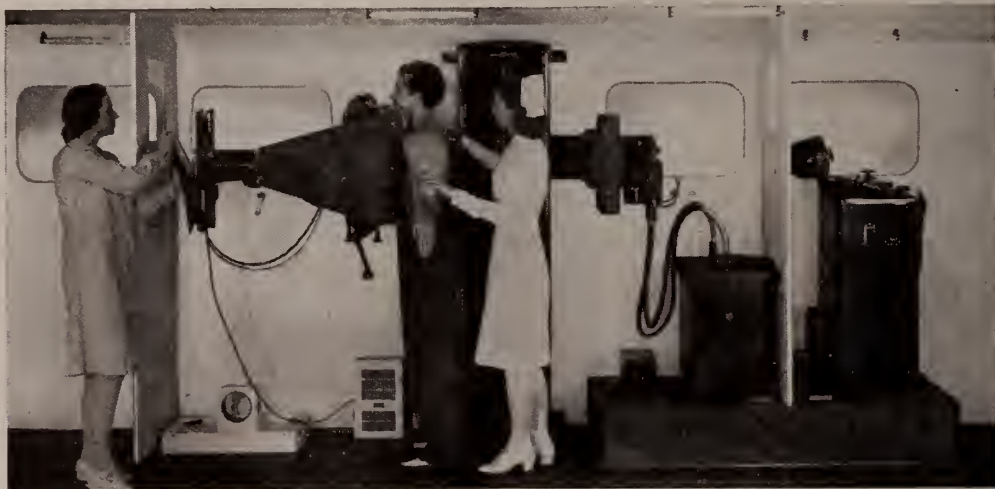
## Ultimate Victory Over Scourge of the Ages is Foreseen With the Universal Use of Photo-Roentgenography

In light of statistics which point to a half-million cases of active tuberculosis in the United States, and 60,000 deaths annually from this disease, it is heartening to grasp the significance of the following statement by Surgeon General Thomas Parran, in a paper read before the A.M.A. convention in Chicago:

*"The mass case-finding program for the control of tuberculosis launched by the U. S. Public Health*

*gathering momentum, the General Electric X-Ray Corporation has enjoyed the privilege of assisting many organizations in planning and equipping for mass x-ray surveys in both large and small population areas, in hospitals, and in industries.*

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*Interior view of G-E travelling x-ray unit for mass chest surveys*

*Service early in 1942 has demonstrated the value of the small-film x-ray.*

*"Tuberculosis can be eliminated as a public health problem in a measurable time, if we use the x-ray to locate every case in the population—and I mean every case—and if we provide adequate facilities and personnel to isolate and treat infectious cases. For the first time, our technological progress makes this goal practical."*

In this great work now under way and rapidly

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**No Constipation**



Magmasil is available through  
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A stable aqueous suspension of hydrated magnesium trisilicate in extremely fine subdivision, Magmasil is an outstanding advancement in the treatment of peptic ulcer, gastritis, hyperchlorhydria.

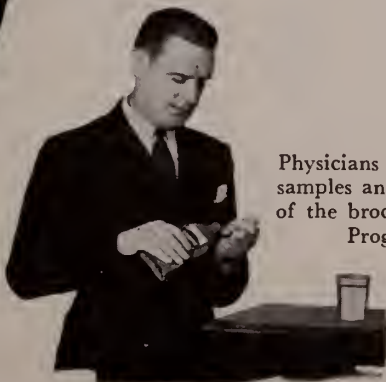
Its antacid action is powerful; one teaspoonful neutralizes 86 cc. of N/10 HCl. It is prolonged, extending over fully four hours.

Hence fewer doses are needed, the customary 11 P.M. administration usually holding the patient comfortable through the night.

Magmasil is free from the drawbacks and limitations of many other antacids. There is no alkalosis, no chloride depletion, no undesirable astringency, no constipation which has made the patient uncooperative with other methods.

Pain and pyrosis are stopped promptly, and healing is brought about rapidly.

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Physicians are invited to send for  
samples and a complimentary copy  
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Progress in Ulcer Therapy."

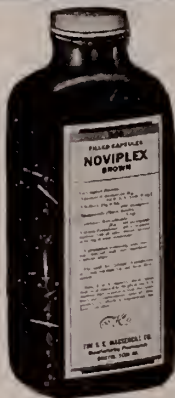
# FOR *Better Utilization* OF THE PRESENT-DAY DIETARY



Lessened food availability, rationing, and increased carbohydrate consumption, in many instances have taken the dietary far from what might be called optimum. Not only to assure better utilization of the present-day dietary, but also to prevent or correct nutritional deficiencies, makes the

prescription of B-complex vitamins rational procedure. Noviplex vitamin B-complex, largely derived from high potency yeast concentrates, provides all the naturally occurring identified and unidentified factors of the vitamin B-complex, including choline, inositol and biotin.

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Physicians are invited to send for the new catalogue of Massengill Pharmaceuticals Vitamins and Hormones For Parenteral Administration.

Each capsule of Noviplex contains:

Thiamine hydrochloride.....	1 mg.
Riboflavin.....	1 mg.
Niacinamide.....	8 mg.
Pyridoxine hydrochloride.....	0.1 mg.
Calcium pantothenate.....	0.2 mg.

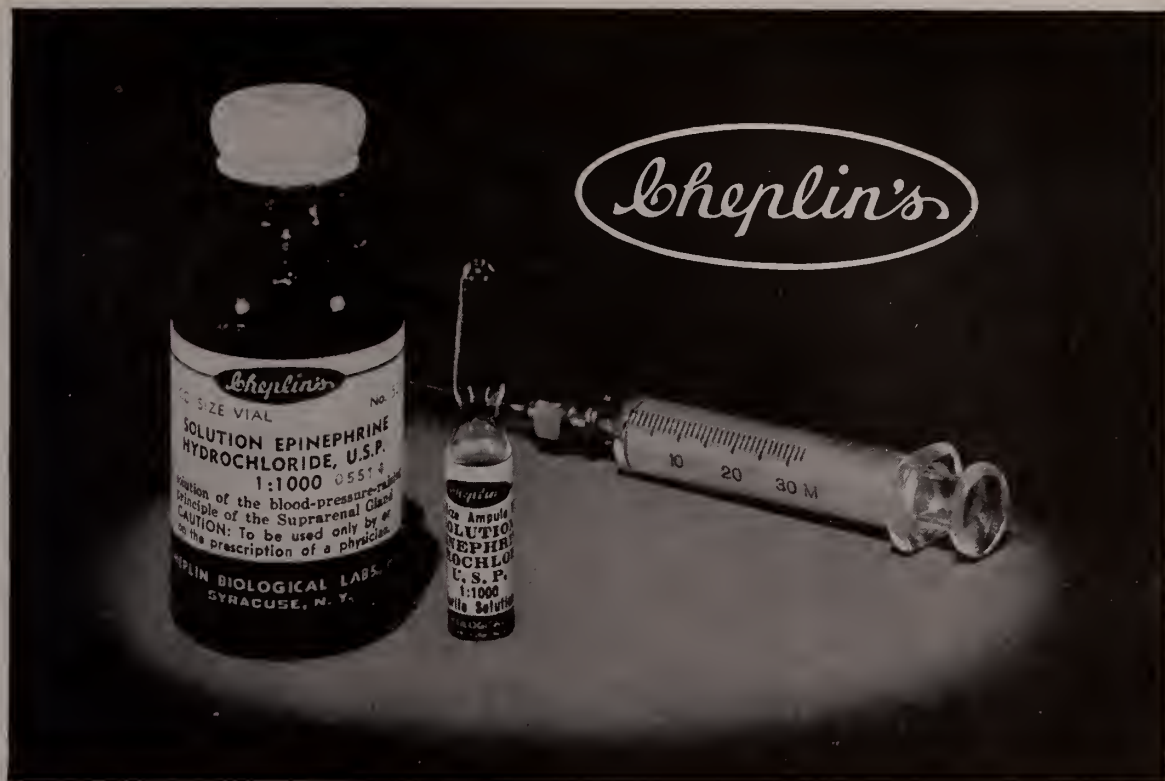
plus all other factors naturally occurring in yeast concentrate. Noviplex is supplied in bottles of 100 and 500 capsules.

**THE S. E. MASSENGILL COMPANY**

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NEW YORK • SAN FRANCISCO • KANSAS CITY





## Epinephrine Hydrochloride 1:1000 N.N.R.

CHEPLIN'S solution of this powerful vasoconstrictor, hemostatic and circulatory stimulant is adjusted to a definite standard strength and is physiologically assayed by measuring the effect on blood pressure.

EPINEPHRINE HYDROCHLORIDE may be administered by hypodermic, inhalation or topical application, affording rapid relief of asthmatic

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**EPINEPHRINE HYDROCHLORIDE is packaged as 1:1000 in:**

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- 30 & 480 cc. bottles for topical applications.

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STANDARDS AT  
AN ACCEPTABLE COST"

### CHEPLIN BIOLOGICAL LABORATORIES, INC.

*(Unit of Bristol-Myers Company)*

Syracuse, New York



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Since the professions of medicine and pharmacy are so interdependent we believe the interests of both are served best by mutual understanding and cooperation.

In full realization of our responsibility to the physician and his patient our energies shall be devoted to the production of pharmaceuticals which can be prescribed with confidence in their purity and uniformity.

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# NOW for Your Patients Who Prefer Tablets—THE NEW PLEBEX TABLETS

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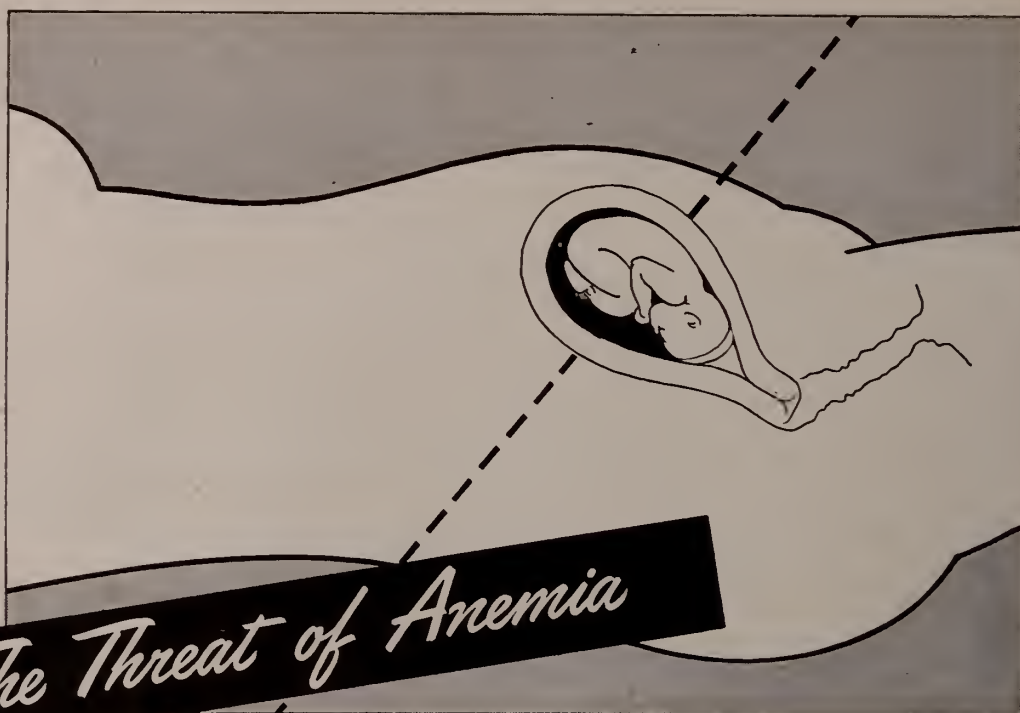
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BUY WAR BONDS FOR VICTORY

# *The Illinois Medical Journal*

*September, 1944*

VOL. 86, NO. 3

Official Journal of the Illinois State Medical Society

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Harry Culver, Walter Stevenson, Raymond W. McNealy.

## Editorials

### DON'T FORGET THE BOYS IN SERVICE

During recent weeks we have received many letters from members of the Illinois State Medical Society who are with the armed forces on the many and ever-increasing battle fronts. Usually they wonder why they do not receive their Journal regularly, as they may receive a copy or two then no additional copies for a number of months. One fine young physician in the South Pacific wrote that he had received a copy of the Journal, read everything including the ads, then passed it around among the other medical officers who also were interested in the copy at hand. It had been the first medical journal any of these men had seen in many weeks, and it was appreciated greatly.

The Journals are sent to overseas members each month, and it is through no fault of the editor and his assistants when copies are not received regularly. It is a big task to get all mail to the millions of men in service, and naturally first class mail should arrive before magazines and other publications sent on a lower postal rate.

It is the practice of many physicians to write regularly to their absent confreres. Even though there are fewer physicians remaining at home to give civilian care, the average physician can still find time which can be utilized in writing to his personal friends participating in the unusual medical and surgical care program of the Services.

With the many changes of address due to service problems, any such change should be sent promptly to the State Medical Society and to the Editor of the Journal so that there will be no unnecessary delay in writing or in sending medical journals and other material to physicians in service.

Everyone today is proud of the health record maintained in the Army and Navy. Much credit should be given to those responsible for arranging the present program, and likewise to the thousands of physicians actually rendering the services. Those of us at home have the opportunity of attending medical meetings, reading many journals and new books which are available; but unfortunately the busy members of our profession on active duty work long hours, have little time for recreation and study, and do not have the facilities available when the time could be so utilized. They will appreciate hearing from home to learn of the problems of their former colleagues, and to get our "every day news."

### MILITARY MEDICAL HISTORY OF ILLINOIS

Some years ago the Illinois State Medical Society endeavored to prepare and publish "The History of Medicine in Illinois," which it was thought, could be made complete in one volume. After working diligently for more than two years

it was learned that enough material had been accumulated to fill three or four volumes. It was the intention of the Society to issue one volume as soon as it could be completed, then later edit and publish a second volume to bring the historical data up to date. Owing to many unavoidable conditions the second volume has never been published.

There is an unusual opportunity available now to collect historical data concerning the work of the physicians in service. When this material has been assembled, it can be published in such a way that it can be added to the permanent records of the Society for the benefit of future generations. We are informed that medical histories were published of the achievements following both the Civil War and the first World War under the supervision of the Office of the Surgeon General. Plans have been under way for approximately three years to collect and preserve for publication the many medical achievements of the present war with the responsibility placed in the Offices of the Surgeons General.

Many physicians in Illinois are receiving letters regularly from friends and colleagues in the

medical services. Much valuable material for an Illinois Medical History of the War which could no doubt be incorporated in the second volume of the History of Medicine in Illinois can be amassed in this way. The many achievements of medical science and their actual use in the field and base hospitals will make an interesting story for many years to come. When Illinois physicians are involved in these many fields, along with citations for unusual bravery under fire, emergency applications of therapy with the minimal requirements available in the field, dug-outs, etc., will make it indeed a most memorable record for future generations in medicine.

The Illinois State Medical Society has a permanent Committee on Archives which will endeavor in every way to get information concerning Illinois physicians in service, their work, etc. Every county medical society within the state should aid in procuring such information from members now in service, or from those who have been given their medical discharge.

Illinois physicians in service on the many fronts will no doubt see this editorial and perhaps will voluntarily send to the Editor or

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others desirous of aiding in the procurement of historical data on this type, material so that it may be properly recorded and kept safely until a sufficient amount is available to justify its publication.

Many stories quite obviously will remain untold until the end of the war, but there are many interesting incidents pertaining to the medical and surgical work of Illinois physicians which can be told while they are fresh in the memory of the military physicians.

The Illinois State Medical Society endeavors each month to send to each member in service a copy of the Illinois Medical Journal. Even though copies may be several months late it is through no fault of the Journal staff. Many times failure to receive the Journal is due to the failure of the physician to report his latest post office address. We therefore would urge our overseas members to keep us informed of their addresses, and whenever a physician is transferred, to let us know at once of the change.

#### THE EVALUATION OF PENICILLIN AS A THERAPEUTIC AGENT

A short time ago an announcement was made that there would be a limited amount of penicillin stored in many hospitals throughout the country so that it would be available for civilian use in cases where there seemed to be a reasonable belief that it was indicated in the treatment of definite diseases. Under the plan penicillin could be procured and would be charged to the hospital where the treatment was to be given, and the cost greatly reduced so that it is possible to use it in families in moderate circumstances.

During the past month Sir Howard Walter Florey, professor of pathology at Oxford University, has been making a short visit in the United States. He was the first to prove that penicillin could save human life. In a nationwide broadcast he told the story of penicillin and its use to save lives on the battlefield and in base hospitals on the war fronts. He was particularly impressed with the work done in this country in overcoming the problems of large scale production of the drug, thus making it possible not only to produce the desired quantity for the armed forces, but also to have a fairly liberal supply for civilian use.

Many articles have been written and published

in lay publications which have in some instances given an erroneous impression of its value so that many believe that it is the long sought panacea which will cure all disease. During the early stages of its development in the United States many physicians were unable to make their own determinations through actual experience of the value of penicillin in many conditions. No doubt now that a greater supply is available, it will be tried in many diseases for which there is no definite indication for its use. Many will quite obviously be disappointed when relief is not obtained, yet its clinical worth has been proven so many times that it can now be considered as one of the greatest additions to the armamentarium of the medical profession in many years.

Penicillin has been used in all branches of medicine and many interesting reports are to be found in every type of medical journal that comes off the press. Penicillin can be used locally, in solution, or in an ointment base, intravenously either by the continuous drip or by repeated intravenous injections, intramuscularly, intrathecally, and it can be used in powder form with sulfanilimide, and perhaps with other drugs. Recent literature has reported its use intramuscularly as a transfusion, similar to the continuous intravenous drip, and with good results in selected cases.

In bone infections some of the most spectacular results through the use of penicillin have been reported. However it can in no way replace indicated surgery, although proper surgical treatment followed by the administration of penicillin has resulted in excellent recoveries where without its use, the prognosis would seem almost hopeless. Experimental work done recently by Heilman and Herrell suggests that penicillin may be of real value in at least two virus infection in man, psittacosis and ornithosis. Herrell states that "penicillin therapy should be confined to pathogens known to be susceptible to its action."

With a greater amount of this valuable therapeutic agency available for general clinical use, it is most likely that its true value in the treatment of disease will soon be determined, and in the meantime it seems quite logical to state that it should be used in those types of conditions in which its value has already been established definitely.

# Correspondence

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## AMERICAN COLLEGE OF SURGEONS CANCELS 1944 CLINICAL CONGRESS

The American College of Surgeons, upon action of its Board of Regents, has cancelled its Annual Clinical Congress because of the acute war situation that has developed, involving greater demands than at any time in the past upon our transportation systems for the carrying of wounded military personnel, troops, and war materiel. The Congress was to have been held in Chicago, October 24 to 27.

Dr. Irvin Abell of Louisville, Chairman of the Board of Regents, in making the announcement, said that this action was taken after consultation with officials in Washington.

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## WOMAN'S AUXILIARY THE PRESIDENT'S MESSAGE 1944-1945

Greetings are extended by your President to all members throughout the state. Again a new Auxiliary year lies ahead with its work and its problems. The success of this year depends not on any one individual alone, but on all working together as a whole. Therefore, it is up to every member to see that the aims and purposes of the Auxiliary are carried out. Keeping this in mind, the accomplishments of "OUR YEAR" will be a reward enjoyed by each one contributing her efforts toward these ends.

An innovation this year is the School of Instruction. Much time and work has been put into this by women who have had years of experience in Auxiliary work. A need for such a school as this has been felt

for some time. A greater understanding of the objects and mechanics of the Auxiliary is necessary in order that a more decided progress can be made. All members, and especially officers and chairmen, are urged to attend a School of Instruction. Tentative plans are to have a School of Instruction made available to all at some time during the year. Notifications will be sent out as these plans materialize.

Again all Auxiliary members are asked to keep a close watch on legislative matters. Although the Wagner-Murray-Dingell bill has been more or less dormant, it could be brought up at any time. Also we must continue to be on the alert for the osteopathic and chiropractic legislations which are always attempting to gain foot hold.

The task of increasing the Benevolence fund is for the second time especially asked of the Auxiliary by the Medical Society. It is expected that the immediate years ahead will greatly increase the need for Benevolence. The Auxiliary can show a sincere spirit of cooperation by aiding in this work which is requested of us by our doctors.

Please remember that your President is here to serve you, and is ready at all times to give any help possible.

— Estella West Gareiss

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## WOMAN'S AUXILIARY DISTRICT MEETING, PEORIA, ILLINOIS

The Woman's Auxiliary to the Peoria Medical Society is sponsoring a School of Instruction for all county officers and chairmen to be held at the Pere Marquette Hotel in Peoria, Illinois on

September 27, 1944. (Same time and place as the Mississippi Valley Conference)

Duties of all county officers and chairmen will be presented and discussed.

All physician's wives are invited. Those who are not members of the Auxiliary are cordially invited so as to become acquainted with the history and aims of the organization.

Registration — 9:30 A. M.

Open Session — 10:00 A. M.

Luncheon — 1:00 P. M.

Program following.

Our state President, Mrs. Alfred Gareiss of Chicago, Illinois, will be our guest of honor.

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### AMERICAN ACADEMY OF PEDIATRICS WITHDRAWS SUPPORT FROM CHILDREN'S BUREAU

Further evidence of opposition to a trend toward socialized medicine was noted here in the action of the American Academy of Pediatrics in withdrawing its support from the Children's Bureau because its system of emergency maternity and infant care is an entering wedge for socialized medicine.

Last month a conference of child specialists and social workers here took a stand against the bureau's group care of children, asserting that group care was damaging to child welfare and actually more expensive than a foster family system of care which the conferees advocated. The academy announced its position in the *Journal of Pediatrics* as follows: "We feel the time has come when the academy and the pediatricians of the United States must withdraw their support from the Children's Bureau and use their influence as a group and as individuals to place all health activities under the Public Health Service."

Records of the Children's Bureau show that since the beginning of the program in March 1943 through May 1, 355,000 mothers and babies of servicemen received federal aid under the program for which Congress appropriated \$42,800,000. Entitled to care under the program are wives and infants of men in the four lowest paid grades of the armed forces.

The academy withdrew its support despite insistence of Dr. Martha M. Eliot, assistant chief and chief medical adviser of the bureau, that "EMIC will disappear when the war is over."

The pediatricians, in throwing their support from the Children's Bureau to the Public Health Service, are transferring it from an agency dominated by social workers to the medical authorities wielding balance of power at Public Health Service.

Dr. Eliot says in defense of the program that Congress brought it into existence as a wartime measure. She denied that the Children's Bureau intended to enter the practice of medicine after the war or to continue the emergency medical and infant care program in some other guise.

Pediatricians argue that the wartime program had made the Children's Bureau an active factor in the practice of medicine in this country "dictatorially regulating fees and conditions of practice on a federal basis." It quoted articles issued by the bureau as indicating that it is evident that "a free to all service, with full time salaried physicians, paid for directly from general taxes and controlled and directed by a federal bureau," is planned. The average EMIC payment is reported to be about \$84 a case.

J. A. M. A. Aug. 12, '44.

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The mortality curve in females reaches its high point (except for very elderly females) much earlier than it does in males. The curve for the latter rises evenly with age; the curve for the former climbs abruptly and tends to remain horizontal. Knowledge which throws some light on this sex differential have come from general physiology and pathology and it is a matter which deserves continuing study. But one need not wait upon an explanation to appreciate that young women offer a higher tuberculosis risk than young men; nor need one wait upon additional knowledge when it is evident that the manual worker in general has a higher tuberculosis mortality rate than has the white collar group. The facts to face are that war's necessities are pushing one high rate group into the working and living conditions of another high rate group; and unless every precaution is taken, the factors which contribute to the high rates in these respective groups may act and react upon each other to the jeopardy of the human beings concerned. Obviously, the situation has within it all the elements of an epidemic (or high endemic) potential. Ed., Am. Jour. Pub. Health, July, 1943.

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*Tuberculous individuals can live their normal span of life or even exceed the recognized life expectancy.* Arthur Rest, M.D., Amer. Rev. of Tuber., Mar., 1942.

# Medicine's Role in the War Effort

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## INDUSTRIAL MEDICAL PROGRAM OF THE ARMY

The Army is very likely the largest single employer in the country today. Not only does it operate its own arsenals, depots and industrial plants, but also the Surgeon General's Office is responsible for sanitation, hygiene and medical supervision over army owned contract operated installations which are located on military reservations. The chain of responsibility extends through the Surgeon General, who establishes policy and maintains advisory supervision into the service commands the army air forces, to the ports of embarkation under the control of the chief of transportation, and to the chief of ordnance.

In the Surgeon General's Office the Occupational Health Division functions in the Preventive Medicine Service. It establishes policy, gives technical advice, supervises the Army Industrial Hygiene Laboratory and maintains liaison with other governmental agencies concerned with industrial health and safety. The Army Industrial Hygiene Laboratory, located in the School of Public Health at Johns Hopkins University in Baltimore, surveys army industrial installations as to environmental hygiene and provides medical and engineering consultation to control occupational health hazards.

The plan of organization in each service command includes the appointment of a qualified industrial medical officer and a qualified sanitary corps officer as the industrial hygiene engineer, acting under the direction of the service command surgeon. These officers make inspections, recommend the installation of new or additional medical facilities, participate in industrial hygiene surveys and cooperate with other personnel in the service command in the control of absenteeism and the prevention of industrial accidents. Requests for assistance from the Office of the Surgeon General are transmitted by the commanding general of the service command.

The commanding general of the Army Air Forces makes use of the central agency set up in the Sur-

geon General's Office. He also is empowered to provide personnel for developing industrial medical services in army service forces commands and designates qualified medical officers and sanitary officers to conduct adequate industrial health programs. The chief of transportation acts in an identical capacity at the ports of embarkation.

In the installations themselves medical responsibility may reside in a medical officer, a contract surgeon or civilian physician as circumstances suggest. In any case the duties include physical examination (preplacement and periodic), emergency care, immunization, control of occupational health hazards, maintenance of proper reports and records, industrial hygiene consultation services, health programs, cooperation with safety programs and the necessary measures for a healthful work environment. In all of these services the responsible officer is assisted by the industrial hygiene engineer.

Special regulations apply to personnel. Civilian physicians qualify for assignment through civil service, or contract surgeons are employed to conduct the medical services at all army operated industrial plants. Such employment customarily follows after authorization by a service command and after clearance with the Procurement and Assignment Services. Funds are allotted by the service command. Registered graduate nurses not eligible for service in the Army Nurse Corps are generally employed in army operated plants. This rule can be modified only by special action of the commanding generals of the army service forces or army air forces. Supplies and equipment are available from the Surgeon General or appropriate medical department distribution depot.

★ ★

## AIR EVACUATION AIDS WOUNDED IN BURMA

Col. Don Flickinger, wing surgeon of the AAF Air Transport Command, India-China Wing, who recently returned to the United States for reassignment, told of the increasing number of sick and wounded being evacuated by air transport in the

China-Burma-India theater of operations and disclosed that among them were hundreds of Chinese soldiers wounded in action against the Japanese in Burma. Hundreds of other casualties of the Allied ground forces fighting in Burma also are being evacuated by air, the total number of patients in March being 1,106 and in April 1,342. Six regular air evacuation "runs," one of them over the Hump, are made by the Air Transport Wing each week, the patients on each being cared for by flight surgeons and flight nurses.

Air evacuation medical personnel are facing the same hazards that the ATC pilots do on such runs. In one instance a flight nurse, a flight surgeon and an enlisted surgical technician were wounded when a Japanese bomber bombed and strafed their field just as they were taking off in a transport plane. Colonel Flickinger stated that the general health of the flying personnel making the dangerous trip over the Hump, taking in supplies to China, was good. Many factors, such as better sanitation, food, living conditions, emergency rescue, training and rotation of air crews back to the United States, have greatly improved the physical and mental status of the personnel. Colonel Flickinger said that the three principal reasons for the good standard of health maintained in the wing were the basic toughness of the American soldier, the vigilance of medical officers and the support and backing of the commanding general in all recommendations by the flight surgeon.

In August 1943 Colonel Flickinger parachuted with medical supplies to the aid of 20 survivors of a four engine transport plane which crashed in a wild region of Burma. The survivors included two U. S. government officials, a radio news commentator and Chinese army officers. Colonel Flickinger was awarded the Legion of Merit in 1942 for his experiments with devices to aid in sighting pilots forced down at sea. He also holds the Distinguished Flying Cross, Soldier's Medal, Air Medal and a Presidential unit citation.

★ ★

#### DOCTORS USE OWN BLOOD TO SAVE WOUNDED SOLDIER

Two British army doctors each took a pint of blood from the other to save a seriously wounded soldier after the Germans had bombed a dressing station on the Normandy beach. The two physicians, Capt. D. A. Squire of Bristol and Capt. Hugh Conway of Beith, Scotland, had already sent for a fresh supply for their dwindling stock of plasma. Before it reached them, however, a bomb demolished the evacuation tent, killing some stretcher bearers and critically wounding others. There was no time to wait for the plasma, so the two doctors gave their own blood to one of the most badly wounded, thus saving his life.

#### RAPID, SIMPLIFIED METHODS FOR TREATING GONORRHEA WITH PENICILLIN

Physicians of the U. S. Public Health Service, Federal Security Agency, recently reported on the rapid, simplified methods for treating gonorrhea with penicillin, which require no hospital care for the patients and which can be used conveniently by physicians in private practice or by clinics. One schedule of five treatments can be completed in only seven and one-half hours; another requires additional treatment the morning of the second day. The use of either of these methods, or modifications of them, may make possible wider application of penicillin treatment to the problem of gonorrhea control in the national program to combat venereal diseases where time and circumstances do not permit the use of standard twelve to twenty-one hour treatment schedules. The new methods have been effective in almost as large a percentage of cases as the standard schedules.

The "outpatient" schedules of treatment were developed by Dr. C. J. Van Slyke of the Public Health Service Venereal Disease Research Laboratory, Staten Island, and Dr. S. Stienberg of the U. S. Marine Hospital, New York. The race of the patients, the length of time they had the disease and previous treatment with sulfonamide drugs apparently had no effect on the results of penicillin treatment. Many of the patients volunteered the information that a definite sense of well-being followed the injections of penicillin.

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#### UTILIZATION OF RECOVERED PSYCHONEUROTIC PATIENTS

Recovered psychoneurotic patients are given retraining by the Army so that they may be utilized for further service. Classification boards carefully review each man's record and indicate the degree and kind of service he is capable of performing. The Classification Board will be constituted only for the purpose of removing classification of restriction as regards mental state for the purpose of declaring an enlisted man to be qualified for full general duty. Assignments are governed largely by the geographic location in which the men desire to be stationed, and it is the responsibility of each installation to utilize the men in best possible manner considering their limitations as shown on W.D., A.G.O. form 20 and Disposition Board report included in records.

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#### FOURTEEN SOLDIERS WHO VOLUNTARILY CONTRACTED SANDFLY FEVER FOR RESEARCH AWARDED MEDALS

The Legion of Merit was recently awarded to fourteen soldiers who volunteered to submit to experiments which greatly increased the knowledge of sandfly fever, a disease encountered by American fighting men in tropical and semitropical regions. The soldiers were all infected with the disease during the experiments. The fever was produced in

some of the volunteers by small injections of blood from individuals who had it and in others by deliberate exposure to repeated bites of infected sandflies. The carrier is a fly about an eighth of an inch long, and it is only the female of the species which bites. The experiments disclosed that the virus causing the fever in the Middle East was the same as that contracted by our soldiers in Sicily.

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#### BLIND YANKS TREATED AT ST. DUNSTAN'S

The first American casualty from Normandy was recently admitted at St. Dunstan's, famous British hospital and training center for the war blinded. Under the system of mutual aid, by which not only equipment but the brains and experience of Britain and America are pooled, it was agreed by the American and British governments that this unique eye hospital would receive American casualties from the European theater and treat and train them exactly as are British soldiers and airmen. The United States could similarly take care of British eye casualties from the Pacific area. Seven Americans have been admitted to St. Dunstan's to date. Some have now returned to America to continue treatment and training. Others have so taken to St. Dunstan's training and personnel that they have asked to stay in England until thoroughly rehabilitated and have been allowed to do so.

The most recent achievements in coordination between British and American services for the blind include the production of "talking books." These full length recorded novels, biographies and many other types are so made that the blind can confidentially handle and play them. Like ordinary phonograph records except for the fact that they are very slow running, they must be played on a specially constructed machine. Thus technical coordination is essential in order for Britain and the United States to exchange recordings.

Britain has just begun making talking books for the Library of Congress and other distribution in America, and several copies of "Whereas I Was Blind," by Sir Ian Fraser, the personal story of the founder of St. Dunstan's, are now en route. St. Dunstan's finds that the blind especially like novels which have made popular plays and films, and American recordings of Daphne Du Maurier's "Rebecca" and Margaret Mitchell's "Gone With the Wind," on eight records, have recently arrived here. Richard Llewellyn's "How Green Was My Valley" is a popular British recording.

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#### POSTWAR TRAINING OF MEDICAL CORPS OFFICERS

The Office of the Surgeon General of the Army has announced the appointment of a committee to formulate plans for postwar training of medical corps officers who will be separated from the military service at the end of the war. The committee consists of Brig. Gen. Raymond W. Bliss, chief of

operations service, chairman; Brig. Gen. James S. Simmons, chief of preventive medicine service; Col. James R. Hudnall, chief of personnel service; Brig. Gen. Fred W. Rankin, director of surgery division; Brig. Gen. Hugh J. Morgan, director of medicine division; Col. Floyd L. Wergeland, director of training division; Col. William P. Holbrook and Lieut. Col. R. H. Meiling, representatives from the Army Air Forces; Col. R. B. Skinner, representative from the Army Ground Forces; George B. Darling, M. D., representative from the National Research Council.

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#### ARMY NURSE CORPS ACQUIRES FULL MILITARY STATUS

Approximately 40,000 Army nurses have become officers of the Army of the United States, acquiring full military status for the first time since the Army Nurse Corps was founded in 1901 by an act of Congress. By the terms of an executive order signed by President Roosevelt, the entire personnel of the Army Nurse Corps has been moved bodily into the Army, with the same pay and prerogatives as other officers. Prior to passage of the bill signed by the President, June 22, and made fully effective July 12, Army nurses held what was known in the Army as "relative rank," giving them subordinate status and limited military authority. Army nurses now have the same status as members of the WAC, who were also an army auxiliary when first organized. Commissions in their present grades will be issued to all members of the Army Nurse Corps under the provisions of the new executive order unless they expressly decline appointment. Female dietitians and physical therapy aides will have the same military status as nurses and will be commissioned similarly.

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#### PROCEDURES GIVEN FOR A.S.T.P. MEDICAL, DENTAL PROGRAMS

Procedures for disposal of certain enlisted personnel in the Army Specialized Training Medical Program necessitated by provisions of the Military Appropriations Act, 1945, have been announced by the War Department. The act, approved June 28, 1944, stipulated that none of the funds appropriated shall be used for training medical and premedical students unless they were in training prior to June 7, 1944, and such training was defrayed from 1944 appropriations.

At the same time, it was announced that the A. S. T. P. dental training program is being terminated at the close of the present semester except for those in the senior, or final year, who will be permitted to complete the course and on graduation will be commissioned. This action is taken because the Army's requirements for dentists are now filled.

Those individuals now on active duty whose medical or pre-medical educational expenses were defrayed in whole or in part by the government under

the A.S.T.P. program prior to June 7, 1944 will be continued in the medical program of the A.S.T.P. Those on active duty whose medical or pre-medical training was not defrayed either in whole or in part under the A.S.T.P. program prior to June 7, 1944 and who for that reason cannot be continued in the training program fall into two classes who will be disposed of as follows:

1. Those who have letters of acceptance and who would have entered an accredited medical school by Dec. 31, 1944. An individual in this group may elect to be discharged from the Army shortly before the entrance date of the class for which he was accepted; or to be assigned to the Medical Department with no further A.S.T.P. medical training.

2. Those who do not have a letter of acceptance to an accredited medical school, for entrance by Dec. 31, 1944. These men will be continued on active duty and will not be eligible for A.S.T.P. medical training.

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#### HOSPITALIZATION OF DEPENDENTS OF NAVY PERSONNEL

Instructions have been issued by the Navy Department to govern the hospitalization of dependents of naval personnel in accordance with the act of May 10, 1943, which provided for expansion of facilities for hospitalization of dependents of naval and Marine Corps Personnel. The instructions, dated June 10 but just published, define dependents as wife, unmarried dependent children under 21 years of age and mother and father if in fact dependent. Widows of deceased naval and marine personnel also are entitled to hospital care in the same manner as dependents. The Navy Department has authority to designate naval hospitals to which dependents shall be admitted and may remove such designation or add to the list of designated hospitals at any time. The commanding officer of the designated hospital shall determine the availability of accommodations for dependents and their need for hospitalization, reserving sufficient facilities for present and prospective naval personnel patient loads. Dependents shall be admitted only for acute medical and surgical conditions, exclusive of nervous, mental or contagious care. Dental treatment shall be administered only as an adjunct to inpatient hospital care and shall not include dental prosthesis or orthodontia. For each patient admitted and for each day in the hospital, the member of the Navy or Marine Corps concerned shall pay \$7.75. While the Coast Guard is operating as part of the Navy, dependents of Coast Guard personnel are entitled to hospitalization on the same basis as members of the other sea services.

#### STUNG BY VITAMIN BEE?

Don't look now, but you are in the midst of the greatest vitamin boom of all time. There was a period when we considered a vitamin as a small atomic organic substance found only in minute amounts in food; now what have we?

Vitamins can be bought by the barrel and are in every drug and department store and in some grocery stores. Vitamins are being added to various foods to make them more attractive and nutritious.

It is even rumored that vitamin B will soon be added to gasoline if they can find some reason for it. The height of chicanery was reached a short time ago when a local drugstore opened a "Vitamin Bar", the inference being that one may get a snootful of gelatin highballs and have a round of fun without the usual a. m. residual.

The newspapers, magazines, and radios are all playing their part in distributing misleading facts about the virtues of certain vitamin products. The following radio plug may sound familiar to you: Have you tried s-t-u-n, the new perfect vitamin capsule? If you get tired easily, feel run down, and have lost your appetite and your best girl, then you should be taking s-t-u-n capsules. S-t-u-n's have been recommended by a special committee of doctors and have received the seal of approval of Light Housekeeping magazine. Remember, s-t-u-n, spelled backwards, is n-u-t-s." (You can say that again).

The medical profession has allowed the vitamin situation to get out of bounds so that very little scientific control of administration is exercised. Many times it comes under the head of nonspecific therapy. The indiscriminate use of vitamins may have been enhanced by a recent diagnostic innovation called "subclinical deficiency states." After all, there is considerable gelatin in these products, which in itself is an excellent protein substitute, lacking but two important amino acids, tryptophane and tyrosine.

We are fully aware of the fact that there are specific diseases that are associated with certain specific vitamin deficiencies, but symptoms such as loss of appetite, nervousness, headache, malaise, fatigue, irritability, and loss of weight are very often on the basis of something more serious than a vitamin deficiency.

Are we allowing our professional approval to be used for a nonspecific therapeutic element to build up big fortunes for pharmaceutical houses, or is there an actual need for this maelstrom of synthetic, gelatin superchargers now glutting the market?—*J. Lightbody, M. D., in Detroit Medical News*

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# Original Articles

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## THE CARE OF CLEFT LIP AND PALATE IN BABIES

A comprehensive treatise on this lesion, portraying its etiology, varieties and complications, also the time for treatment, anesthetics used, care and prognosis.

LOUIS W. SCHULTZ, M. D.

CHICAGO

The congenital lesion, cleft lip is commonly but incorrectly, called hare lip. Hare lip is a descriptive name that has been handed down because of the fancied similarity of the cleft to that in the upper lip of the hare. Hereafter the terms cleft lip and cleft palate will be used by the author.

*Etiology:* The cause of this lesion is not known and therefore its etiology is open to the imagination of all authors.

This condition is the result of the failure of the constituent parts to unite at the fifth or sixth week of intrauterine life. All the normal parts are there and all you have to do is unite them. Very seldom are parts missing or redundant tissue present.

The etiological factor that is most influential is heredity. The frequency of the lesion in parents and children of the same family or in several children of the same family in varying degrees suggests heredity as the likeliest cause. The lesion may very easily be overlooked for a generation or two if the deformity is minor. A bifid uvula, a slight notching of the upper lip or a congenital scar of the lip, may easily escape observation. Such may go unnoticed throughout the lives of immediate kin — father, mother, uncle or aunt, — and yet all be afflicted.

Malnutrition is another factor thought to play an important role in the cause of cleft lips and palates. The time element of this lesion, i. e. the fifth or sixth week of intrauterine life, coincides perfectly with the time of malnutrition induced by hyperemesis gravidarum. Both occur in the fifth or sixth week of gestation. Many mothers, however, will say they were not sick a minute during the time they were carrying the child, and yet the child has a cleft. Still more mothers will say they were very sick during the early months and their children have no cleft of lip or palate.

Mechanical causes are also to be considered. In the fourth or fifth week of intrauterine life, the first branchial arch closes and forms the lower jaw. This structure, being V-shaped, is forced between the three centers of ossification of the upper jaw, by the extreme flexion of the child in utero; segments of the upper jaw, therefore, do not unite.

The tongue is relatively enormous at this time, more than filling the oral cavity; this, too, may prevent the union of the parts. Other mechanical causes are amniotic adhesions, cord interference, by being wrapped around head, tumor formation, and interference of hands and feet. The climatic changes, geographical, seasonal and barometric pressure, championed by Dr. William Peterson of the University of Illinois, must also be considered.

The last of the etiological factors mentioned in the literature are mental impressions, such as the mother seeing a mad dog, a snake, or falling down the stairs, marked the child. The tabulation shows that the true cause is not known. The author believes that heredity plays

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the most important role. The inability to demonstrate a lesion on the mother or father is of no significance.

Another peculiar characteristic is that most clefts are on the left side. They vary from a very minor, hardly noticeable congenital scar, to the wide open tripartite cleft.

Physicians realize that proper treatment should be started immediately, and since most such babies are feeding problems, a pediatrician should be called in on the case, if possible, also it is preferable that the baby stay in the hospital till the lip has been constructed.

Relatives and friends will want to see the baby; if so, show a perfect baby with similar features, because they will gossip, hurt the parents' feelings and later injure those of the child. Instruct the nurse to exhibit the most beautiful blond or brunette baby, and the comment will be favorable.

The state law should make it compulsory to report cleft lips and cleft palates so that all, regardless of means, may be restored to normal as soon and as perfectly as possible. It is the responsibility of the state to care for these unfortunates when born to indigent parents, so that they may become citizens with unmarred features, with normal speech and with all the senses that otherwise might be involved, intact. This is now being done in many states.

Too much care cannot be exercised in the selection of the operator for this type of work. Loss of tissue in these parts is a very serious matter and may ruin the entire life of the individual if a poor cosmetic result or a speech defect results from improper surgery.

*When to operate:* Inasmuch as the weight of the baby is an important factor in determining the time for operation, it is obvious that the field nurse should know of the case as early as possible, particularly in a rural community; also a pediatrician should be in charge of the child's diet. The field nurse, in the pediatrician's absence, should be able to instruct the mother in the best methods of feeding the baby. One of the main points is to get the food into the baby in the shortest possible time with the least amount of effort on the part of the baby. The child will gain weight rapidly if it expends no energy and all the food is ingested. If the child must work too hard or too long it gets

tired and goes to sleep before taking the proper amount of food. The mother can be taught to feed the baby, holding it in a semi-recumbent position to aid the imperfect swallowing mechanism. Then, if a medicine dropper with a small piece of rubber hose one inch in length on the end is used, dropper full after dropper full can be administered. A teaspoon, a small medicine glass, an aseptic syringe or a Breck feeder, can also be used sometimes to good advantage. The best and most effective method is to gavage these babies by passing a small catheter and then putting on a glass funnel and pouring in the milk. The babies become so lazy they awake only to swallow the tube and then go to sleep again as soon as their stomachs are filled. Their weight curve is upward as a rule, like the normal child. The first week the baby loses weight, the second week it regains its birth weight and the third week it keeps on gaining weight showing that the diet is sufficient and agrees with it.

The surgeon decides when he should operate. The time chosen is very clearly a test of ability and experience on the part of the operator. Surely an operation of choice should not be done before three weeks of age because one can know very little about the baby in the first few days of life. It can't be known whether all the systems are functioning properly and no one wants complications of this type if they can be avoided. It is poor judgment to operate on babies in the first few hours of life, also to wait until they are one year or older up to even eight or ten years before the palate is closed. The ideal time for lip construction is at three or four weeks of age, and for palate construction, three to six months, depending on width of cleft, weight of the child and skill of the operator. The baby should be in the pediatric ward of a hospital where many children are cared for and several nurses can get the experience of handling these cases, preparing them for the anesthetic, operation and post-operative treatment.

*Pre-operative Treatment:* The only pre-operative treatment the author prescribes is that the baby be sent to the operating room with a clean nose, mouth and face. Naturally the weight of the child, the temperature and all other factors that might be detrimental are carefully checked. Temperature very often is elevated one or two degrees owing to the withholding of food or

fluids for too long a time before the operation. A dehydration temperature is easily determined by a careful perusal of the chart. The nasal discharge found in some of these children should not be considered too seriously when the palate is still open. The nose is constantly contaminated from the oral cavity and food and therefore, this discharge should be ignored as a contraindication for operation. Because babies cry bitterly when spoiled and left by their parents in the hospital, they become dehydrated and sometimes develop a cough, which, if unconsidered, may defer the operation unnecessarily. A temperature with a nasal discharge or slight cough is not, as a rule, considered a contraindication to operation but if rales are heard in the chest or there is a rash present, the picture is more serious and the operation should be deferred. Facial blemishes, severe eczema, etc. also are contraindications to operation.

*Anesthesia:* The administration of a general anesthetic to infants a few weeks old is a serious undertaking. The margin of safety is infinitely smaller than in adults. Reactions, such as shock, paralysis, and death result more quickly than in older individuals. The old adage that "A person under a general anesthetic is half dead" is not to be considered too lightly. The above quotation is stated boldly so that the ever constant danger in giving a general anesthetic to an infant may not be overlooked.

There are many methods of administering anesthetics to babies to keep them quiet during an operation. Some of the drugs used are: a sugar water sponge, whiskey, paregoric, seconal, nembutal, novocaine, and the gaseous compounds: nitrous oxide and oxygen, ethylene, vi-anthene, ethyl chloride and ether. These drugs are used alone or in combination by many surgeons with comparatively good results. All operations do not require complete relaxation and absolute quiet, and such cases can be well handled under the influence of some of these drugs.

Since the amount of anesthetic varies in every case and in the same case at different times, the author prefers to give an anesthetic that he can control. He does not administer a drug by mouth, per rectum or intravenously in a child under six months of age.

The reaction will not be uniform in all cases even though age and weight are taken into con-

sideration; one cannot evaluate the personal equation. Once the drug is injected the operator is well nigh helpless if the dosage has been excessive. There is no way to reduce the effect of these anesthetics so that a smooth uninterrupted, prolonged anesthesia may result when too large a dose has been given.

The margin of safety, is widest in the use of one of the gaseous compounds, or better still, the good old time-tried ether vapor.

The ability to give a good general anesthetic is acquired only by years of experience. A few weeks ago this fact was called to my attention very forcefully by the handling of a child by the anesthetist of a hospital. The infant and the nurse were in the ante room and the child was crying bitterly. I noticed the nurse trying to restrain the infant the moment it arrived in the room, a long time before the anesthetist was ready to start her work. This was as inexcusable as is the preparation of the infant for operation before it is put to sleep, such as washing the face with soap and water and then going over it with alcohol or ether and taking a cotton applicator to clean out the nostrils. Such treatment puts the child in a marked stage of excitement before the anesthetist begins. Violent crying and sobbing before the anesthetic is administered will often persist throughout the entire operation, such as, sobs or irregular, deep quick inhalations — no matter how deep the anesthetic may be. Such occurrences increase the difficulty of doing very fine surgery on a cleft lip or palate. The sobbing can all be avoided by employing a little gentle motherly love at the proper moment before the anesthetic is started. I have seen this employed many times and I am sure a much better result has been obtained because of it.

When the anesthetic is begun, the eyes should be covered with a small piece of thin rubber tissue and the mask placed over the nose; ethyl chloride should be applied to the mask drop by drop until the child ceases to cry. There are usually eight to ten outcrys before the baby is asleep. At this moment the ethyl chloride should be stopped and the drop ether method begun and continued until the child is in the third stage of anesthesia. Now the child's head may be wrapped, its face prepared by washing briskly with alcohol sponges and a second towel placed over the first. The child passes through the first and second stage of the anesthesia very quickly

and continues in the third stage nicely until the work is finished.

The four methods of giving ether for head surgery, drop ether, vapor spray, naso-pharyngeal catheter and intubation are all very good and can be given under sterile conditions. The last two methods mentioned are the most dangerous and therefore, are not resorted to for infants today as much as the first two.

Dr. Joseph Brenneman convinced me many years ago that the prevalent idea of an enlarged thymus and the x-raying of all infants for this condition previous to giving an anesthetic is erroneous. I have therefore discarded it in my technique with no ill effects. The first anesthetic given to a child is the one that is probably the most dangerous; if complications do arise they must be met. The preoperative administration of secondal, paregoris, nembutal, etc. narrows the margin of safety and should not be practiced.

The mask should not be in too firm contact with the infant's face because of the small respiratory exchange and danger of building up too great a carbon dioxide content in the blood by rebreathing.

Laryngeal spasm is sometimes very annoying. It is due to the increased sensitiveness of the tissues caused by the anesthetic, the mucus, or manipulations with an aspirator or a sponge. This can be partially overcome by placing the patient in the Trendelenburg position and aspirating only when necessary.

In the administration of an anesthetic one should be able to differentiate quickly between respiratory arrest and respiratory obstruction. These two conditions are very embarrassing and cause some excitement. The former is the cessation of respiration with no effort to breathe. It is differentiated from respiratory obstruction in which the patient makes violent though usually unsuccessful efforts to breathe. Hence one must think quickly of what may cause obstruction and forthwith eradicate the one present. The most common causes of respiratory obstruction are: position, muscular relaxation permitting aspiration of tongue, foreign bodies, mucus, blood, sponges, vomitus, laryngeal spasm, tumors, oedema of respiratory passage and external pressure on neck or chest. The embarrassment due to position as a rule can be corrected by throwing

the head back and straightening the air passage by elevating the angle of the lower jaw. Aspiration of the tongue may be prevented by passing a suture through the tip before the operation and making traction. The mucus in the naso-pharynx and larynx may be troublesome at times but an aspirator clears it away. As in faulty position laryngeal spasm usually will respond to extension of the head and elevation of the chin, thus straightening the air passage as much as possible.

Aspiration of a foreign body calls for immediate removal either by the operator attempting to or by calling in someone qualified to do so.

The easiest way to tell what stage of anesthesia the patient is in is by the respiratory exchange. If the respiratory exchange is normal, the anesthesia is not too deep. In babies this exchange is influenced quite easily and therefore should be watched constantly. Cessation of respiration in infants seldom becomes fatal if recognized early and properly treated. The problem is to get enough oxygen into the patient's lungs. These cases may be divided into three groups; first, those having a cessation of respiration without obstruction; here artificial respiration will inflate the lungs; second, obstruction without cessation of respiratory effort; here removing the obstruction permits spontaneous respiration; third, cessation of respiratory effort with obstruction; here relief of obstruction must be followed by artificial respiration. Quick thinking and acting in these cases, is far more important than the administration of drugs or waiting for relief to come.

The most common and somewhat disturbing complication of ether anesthesia is the cessation of respiration. How long should one wait before breaking operative technique and starting artificial respiration? What methods should one use to resuscitate the infant? Surely one thinks of alpha-lobelin, coramine, adrenalin, metrazol, spanking, dilation of the rectum, cardiac massage and Schafer's prone pressure method of resuscitation. The seconds, not minutes, in such a case are very precious and should be utilized to the utmost. Compress the chest once or twice and wait for about 4 or 5 seconds; if there is no response immediately inflate the child by placing sterile gauze over its face, its mouth shut, gently inflate the lungs by blowing



Figure 1. Modified Rose technique for cleft lip.

in the baby's nose and then make pressure on the chest wall, expressing the air and repeating this process a few times. Almost without exception the child will breathe again after 3 to 5 insufflations.

Some people think the danger of this method is great, involving contamination of the patient, risking a pneumonia, empyema, rupture of the lungs, etc. The truth is, these complications do not occur and if they did, I would still use this method because I would rather have a live baby that sign a death certificate.

Practicing this for the last 24 years has shown me that my contention is correct. If one gets a chance to save just one life by this method, one is amply rewarded.

The first few seconds, are the most precious and must be used to the best advantage. Going to the next room to get the pulmotor or even to start it functioning in the same room, adjusting

oxygen, carbon dioxide, and the rhythm, — all take valuable time. The oxygen and carbon dioxide in one's breath are a perfect combination for the patient and should be made use of while the heart is still beating and thus circulating these gases in the blood.

*Time For Operation:* The earliest time for operation is when the baby is three weeks old and in good physical condition. At this time the diet agrees with it, kidneys, liver, spleen, gastrointestinal tract and the circulatory system are functioning properly, and can operate with comparative safety. To operate on these babies when they are but a few hours old is poor judgment, hence the imperative necessity that operators doing this type of surgery be specifically trained. To wait until the child is two to eight or ten years old before closing the palate likewise is wrong because all the inherent qualities that child was born with are lost. The child



Figure 2. Modified Rose technique for unilateral cleft lip.

has also developed bad habits in coordination of fine lip, tongue and throat movements because of the uncorrected anatomical defect.

The type of operation and extent of plastic construction necessary, depends on the case in hand. Naturally, all cleft lips and palates are not the same. Two clefts appearing identical on the surface, may need different treatment because of the personal equation about which one knows nothing until engaged in the actual process of construction. There are many methods of correcting these defects and all have a modicum of good. The operator should select that technique which will produce the best results in his hands.

The most common cleft lip is the left sided one. The reason for this is not known. The unilateral right sided cleft lip is the next in frequency and the bilateral cleft lip the least frequent. These clefts may range from a slight notch or congenital scar in the vermillion tissue, to a very wide complete cleft either unilateral or bilateral. Other facial clefts are not considered in this paper because they are very rare and would tend to cause confusion.

The closure of a typical cleft lip in which the bony alveolar ridge is also involved, should be made when the baby is about three weeks old. At this age the bones may be reduced with ease by digital pressure and the margins freshened so that bony union may be obtained. The two bony segments are transfixed by a needle carrying a chromic 0 or No. 1 gut suture and held in apposition by tying the suture. The mucous membrane is approximated with two or three nylon mattress sutures using a No. 6-0. The soft tissues may be draped over the bone and the lip formed to normal configuration. Use a modified Rose

technique, elevating the low-attached superior labial frenum to get a deeper vestibule and a more normally contoured lip. The tissues are approximated in their respective layers, viz: muscle to muscle, mucous membrane to mucous membrane and skin to skin. Special care should be given to the approximation of the vermillion border because a slight maladjustment at this



Figure 3. Modified Rose technique for unilateral cleft lip.

point will be greatly magnified in the adult lip. (Figures 1, 2 and 3).

The post operative treatment for cleft lip is relatively simple. The tension on the suture line is overcome by the application of the Logan Lip bow.<sup>4</sup> This contrivance can be applied whenever necessary to relieve all tension on the suture line. To prevent the habit of children to put their hands in their mouths, arm cuffs are used. The cuff is made of canvas with wooden tongue blades sewed into it. It is placed over the elbow,

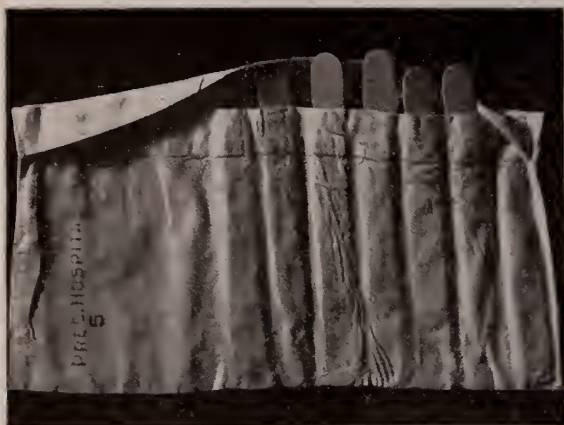


Figure 4. Arm cuffs for fixation of elbow.

tied and pinned to the gown. This prevents the baby from disturbing the lip bow or injuring the lip during the time of healing. (Figure 4)

The absence of inflammation, blood clots and crusts on the suture line indicates satisfactory healing of the lip. Serum oozing out and hardening and more serum trying to ooze out tends to spread the suture line and to produce a wide scar. *This is avoided by keeping this line clean and dry.* Cleansing is done with sterile, short cotton applicators dipped into saturated boric acid solution with which both serum and blood, if present, is removed. A thorough cleansing repeated as often as necessary for the first 24 to 48 hours is usually sufficient, for as a rule, no serum accumulates later. The result is good, no suture lines, no shifting of tissue, but rather a normally contoured lip. In some children these wounds will heal like magic, while others may have some induration and thickening of the lip tissues. To prevent an undue amount of contraction that may take place, massage the lip, starting four or five weeks after the operation. (Figure 5)

To massage, the baby should lie on a bed, the nurse holding the head with the left hand. Place the ball of the index finger of the right hand under the lip and the thumb on the lip. Then roll the lip between the two fingers to get rid of general thickness. This may spread the scar; if it does, discontinue the rolling and stretch the lip straight down along axis of scar to prevent linear contraction. This massage practiced for five minutes each time two or three times daily, will result in a well rounded normal lip in a period varying from two to six months.

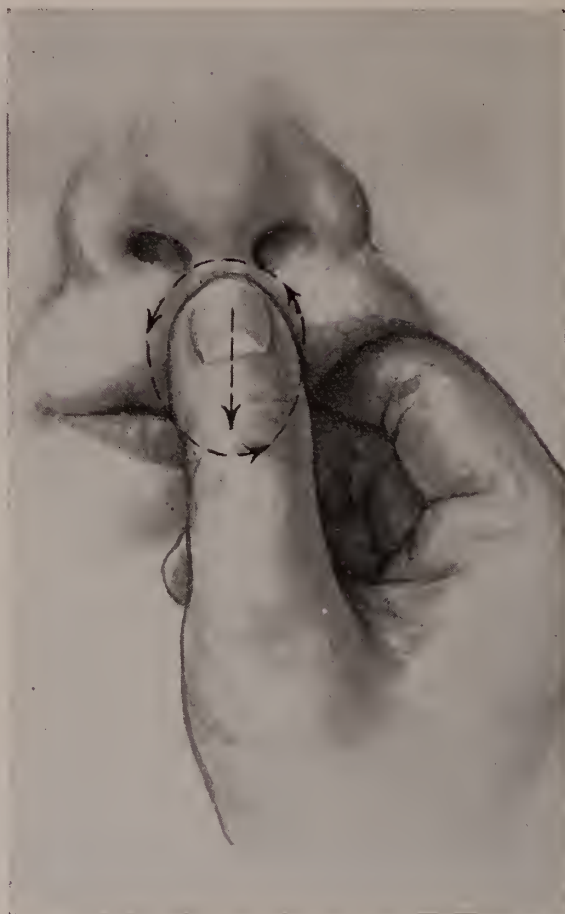


Figure 5. Post-operative massage technique for cleft lip.

As experience accumulates and results obtained are studied, modifications in treatment are adopted.

Years ago Brophy, one of the pioneers in this type of surgery, advocated the moulding of jaws to narrow the clefts of cleft palates. Many men followed this technique, which I feel was wrong. Now, some plastic surgeons doing cleft palates are willing to let these cases grow up with the deformity. There is good reason though for early and complete anatomical union. The lack of muscle balance, due to non union of the segments involved, which should unite at from five to six weeks of embryonal life, persisting to a period after birth, makes itself very manifest by the spreading of these parts. Some of these can and should be restored to normal as early as possible. For, the lip attachments are changed. The long fragment carrying the intermaxillary bone is protruding from lack of lip pressure. The nose is deflected to the opposite side of the

cleft. The tissues of lip and cheek on the side of a unilateral cleft are retruded. In bilateral clefts the bulbar tip of the nose often is depressed between widely spread alar cartilages. The columella may be wanting. The prolabium is small. The intermaxillary segment of bone is well advanced on the end of the vomer in front of the maxillary segments.

All of these deformities are present and are due to lack of muscle balance and restraint. The soft tissues can and should be restored to normal as soon as possible. The maxillary segments should not be moulded because the clefts can be closed without this disturbance, which is detrimental to future development of the entire upper jaw. The intermaxillary segment should be reduced to its normal position when the baby is one month old. This, done carefully, will not interfere with blood supply or growth, and is the key to future development.

Bilateral clefts are the most difficult to correct if a good result is the aim. As a rule, the intermaxillary bone is detached from the maxillary bones on one or both sides; this deformity should be corrected before the soft tissues are adjusted. The soft tissues including the muscles cannot force the intermaxillary bone to position between the maxillary segments and produce bony union of these parts. The difficulties encountered in trying to move the intermaxillary bone by draping the soft tissues over it are: — first, the length of time involved, for it takes months to get the bone even partially in place; second, the lip always has a lot of suture lines and excessive scar tissue in it because of the stretching; third, more operations are necessary to get rid of scar tissue; fourth, this means sacrificing tissue that should not be lost if a perfect lip is desired; fifth, there never is bony union of the maxillary and inter-maxillary segments when this technique is used, sixth, this correction takes so long that a speech defect results from the late closure; seventh, there are fistulous tracts, often permanent, leading from the vestibule of the mouth to the floor of the nose, eighth, the four central incisors in the intermaxillary bud are attached to the end of the vomer which is very uncomfortable for the patient. Furthermore, the patient cannot bite with these teeth because of the lack of bony attachment to the maxillary segments.

All these undesirable factors are avoided if

the inter-maxillary bone is brought to its normal position when the child is about one month old.

The author knows the challenge, that the growth of the intermaxillary bone is arrested. This is not true. After correcting many cases in this manner, the child develops perfectly including the inter-maxillary segment. The technique for doing this work is very simple but it has taken years to acquire. One cannot be too meticulous in doing this type of surgery. The care necessary in handling these tissues can not be over emphasized.

The inter-maxillary segment can be mobilized for reduction in two ways: — first, by making a submucous diagonal incision through the cartilaginous septum and then sliding one segment of the vomer over the other. This technique should not always be used for it may produce a nasal obstruction later in life. The other technique is to do a submucous resection of a small V-shaped section of the septum. The contact points of the intermaxillary segment with the maxillary segments are freshened by removing enough mucous membrane and periosteum to obtain bone to bone contact. The parts are fixed by passing a piece of No. 0 or No. 1 chromic gut around the intermaxillary segment or by passing mattress sutures of nylon No. 6-0 between them. This technique carefully carried out, results in bony union which is easily demonstrated. The baby should rest for at least one month and then should have the lip constructed by the technique the author has devised.

Not being satisfied with the results obtained in most bilateral cleft lip operations performed by various operators including myself, the author searched diligently for a method which would produce a more nearly perfect effect.

Having tried many of the methods described in the literature and obtained mostly poor results, the author finally devised the technique by which he can produce a much better lip in 98 per cent of these cases.

The first prerequisite to success is a large number of cases. The second is best expressed by the phrase: All the normal parts are there. All you have to do is unite them.

The transitional stages from the classical Bilateral Cleft Lip text book technique to the method now developed are evidenced by the cases

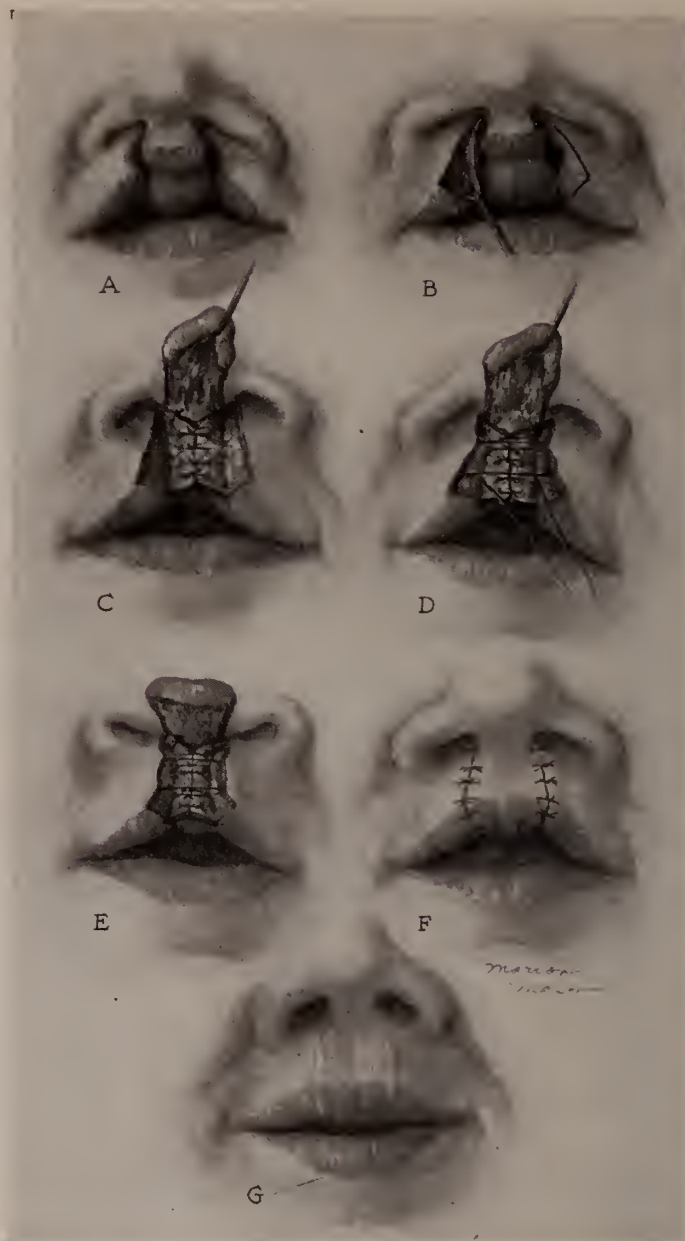


Figure 6. Author's technique for bi-lateral cleft lip reconstruction.

the author has operated on over a period of twenty years.

The illustration presents his technique step by step. (Figure 6 and 7.)

The incisions are made so that all vermillion tissue is saved. The normal vertical lip length is that which closely approximates the length of the skin of the bud of lip tissue overlying the intermaxillary bone. This small portion of skin and muscle develops to double or even treble its original size, sometimes very shortly after it is placed in its normal position between the lateral segments; for then muscle tension

exerts its influence on this highly important portion of lip. The lateral lip segments are prepared by starting an incision high in the lateral wall of the nose, and carrying it half way through the body of the lip to a predetermined point in the mucocutaneous junction. From this point it is carried medially and at the same depth through the lip, which shows when the lip is at rest. The lingual portion of this flap and one similarly prepared on the opposite side are joined later to form the lingual surface of the upper lip.

In the preparation of the central bud, all



Figure 7. Reconstruction of bilateral cleft lip by author's technique.

vermillion tissue up to its attachment to the gum is conserved. The incision is started high in the medial aspect of the nose and carried down to a predetermined point in the mucocutaneous junction; then up through the mucous membrane, to its attachment to the maxilla and following its attachment to the maxilla to the median line. Then a similar incision is made on the opposite side of the intermaxillary bud to correspond with the one just made. Now the central flap is dissected from the bone and so prepared that it fills perfectly the missing parts: (a) skin, (b) muscle and (c) mucous membrane, to give proper contour, thickness, length and width, and is turned up out of the way. The lateral flaps containing the mucous membrane are turned lingually and united in the median line. The central flap is brought down and united with lateral flaps containing the skin — muscle to muscle, mucous membrane to mucous membrane and skin to skin. Interrupted chromic 000 catgut sutures are used for the muscles, and interrupted nylon 6-0 for the skin and mucous membrane. The nostrils should be closed with iodoform gauze impregnated with compound tincture of benzoin. The wound is to be kept clean and dry with saturated boric acid solution and cotton applicators when necessary. The Logan Lip bow can be used to advantage to relieve tension on the suture lines.

The result is an abundance of mucous membrane to fill the central space formed by the

dissection of the median flap from the bone. Thus, a perfect lip results, including the cupid's bow.

Bilateral cleft lip cases usually present with a broad nose. The absence of the columella and the extreme width of the nasal tip are due to the lack of antagonistic forces during the developmental stages. Since this cleft occurs five or six weeks after conception and is not corrected until several months after birth, a great deformity usually results. Normally the intermaxillary bud of lip tissue is influenced by the action of all the muscles entering into the upper lip and the orbicularis oris is in tact while in this condition. The segment contained in the bud is detached on both sides from the rest of this muscle which normally encircles both upper and lower lips. The developmental forces of the septum and dorsum of the nose are forward and the intermaxillary bud of lip tissue, if unattached laterally, is free to move forward with this tissue. Hence, the intermaxillary bud does not always develop to its normal size because the antagonistic forces could not act on this segment. This lip tissue very quickly develops when the normal muscle is established.

The correction of the lip may produce a very broad nasal tip and this should be corrected about one or two months later.

The anatomical deformity of the nose is due also to the wide separation of the alar cartilages, the fleshy portion of its tip lying between these

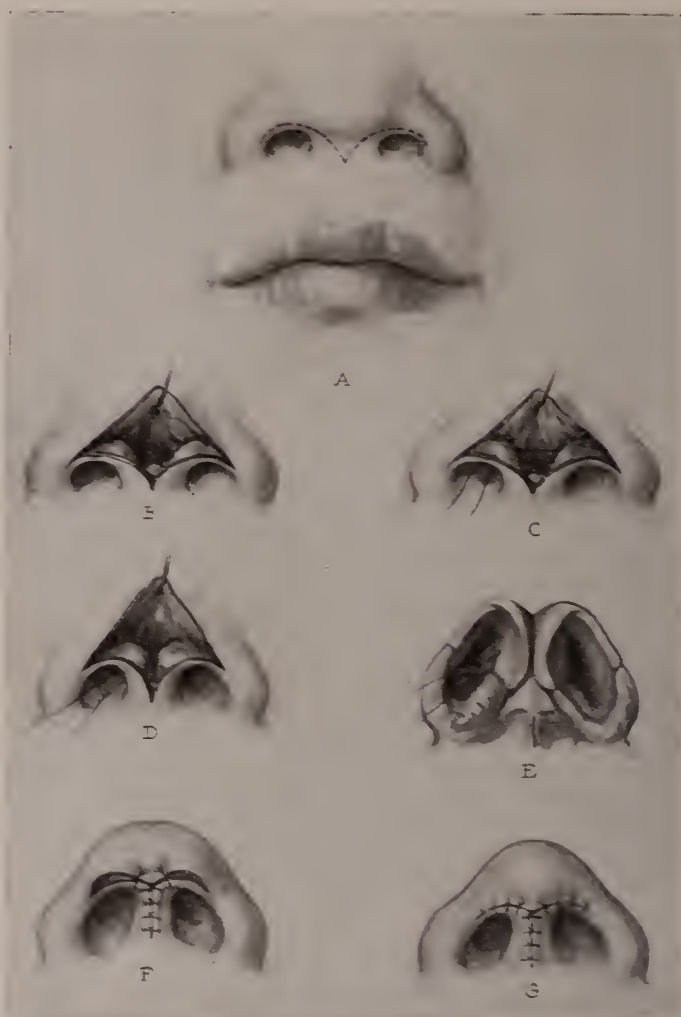


Figure 8. V-Y rhinoplasty for flat nose and columellar development.

cartilages, hence it should be elevated.

The author developed the following technique to overcome these deformities, calling it V-Y Columellar Rhinoplasty. A V-shaped incision is made into the columella, starting the lower portion of the V in the center of the columella where it joins the philtrum. The incision is carried upward and outward on each side on the lower edge of the alar cartilage. The soft tissues are dissected from the nasal spine out to the upper border of the lower alar cartilages. The portion lying between these cartilages and forming part of the tip of the nose, is dissected from the cartilages and held up by a tenaculum. The walls of the columella are approximated. Beginning at the nasal spine, a mattress suture is inserted extending through each nostril bringing the cartilages together at this point. The posterior portion of the columella is closed with interrupted nylon sutures. When near the tip,

another mattress suture is placed through the anterior portion of the cartilages bringing these structures together in the midline. The remaining portion of soft tissue is now sutured to place, which gives a much sharper dorsum and tip to the nose. The vestibule of the nose now is long and narrow and both sides correspond. Development takes place and a well pointed nose results. The pictures will portray the steps described. (Figure 8.)

The suture materials used in closing cleft lips and palates are adapted to the needs of the patients. Use the following sizes and kinds, preferably mounted on atraumatic needles.

Silkworm gut or No. 0 or No. 1 chromic to transfix bony fragments.

No. 40 chromic to approximate muscle and to close nasal surface of palate.

No. 6-0 and No. 8-0 nylon to close skin and mucous membrane of lip.

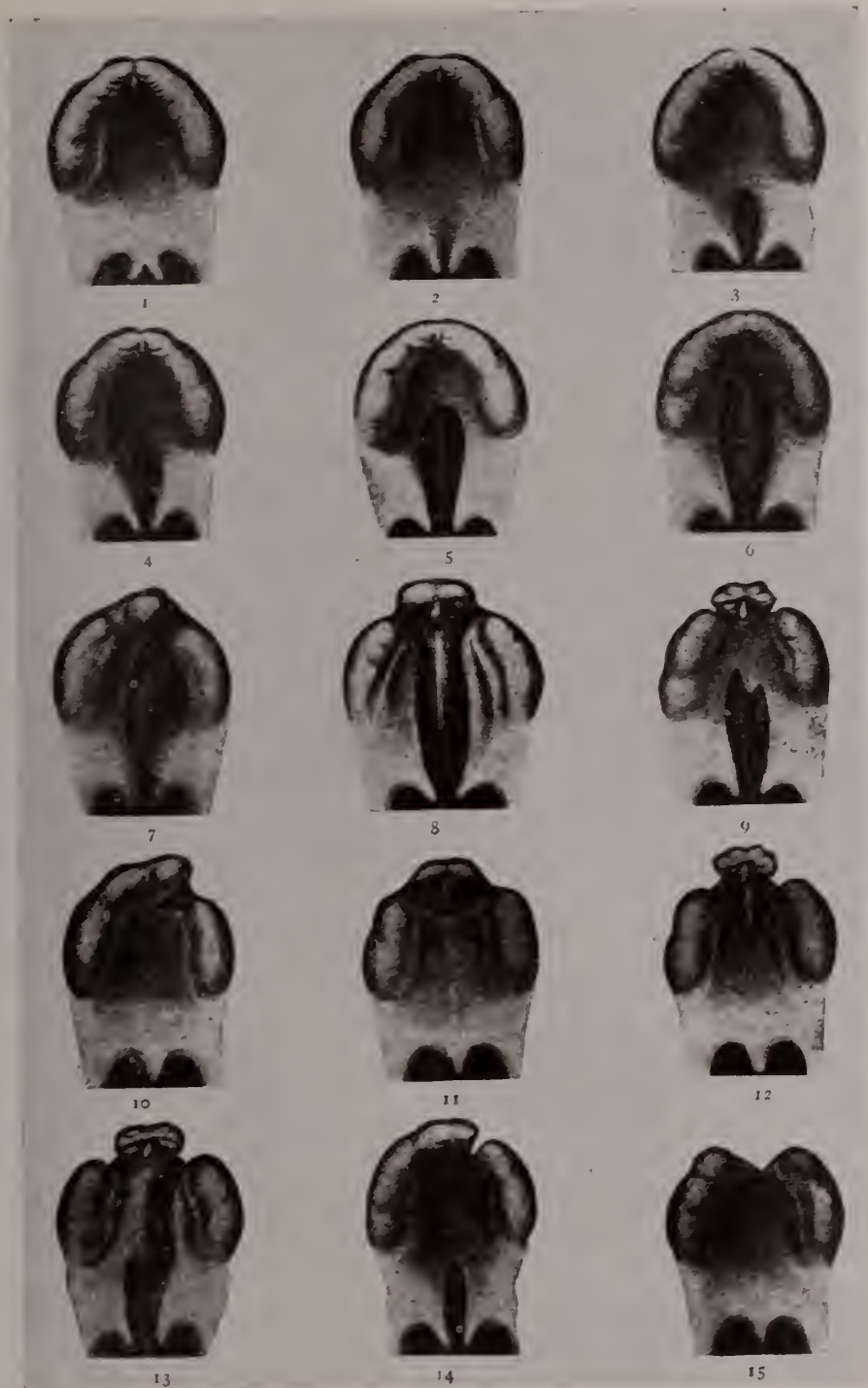


Figure 9. Brophy's classification of forms of cleft palate.

No. 6-0 Nylone to close palate. (braided nylon is not used.)

*Varieties of cleft palates:* Brophy, a pioneer in this work, classified clefts occurring in the hard and soft palates. The plate shows his 15 varieties and pictures all clefts in the midline. The photo and artist's drawing portray a right sided cleft that came to the author for treatment

several years ago. This is the only one he has ever seen. The child also had a macrostomia and other congenital defects in the oral cavity which he corrected at the same time. (Figures 9, 10, 11 and 12.)

As in other branches of surgery, different methods are employed by different operators. For instance, Dr. V. P. Blair<sup>3</sup> uses the Mirault



Figure 10. Artist's sketch of right sided cleft palate and macrostomia.

operation for cleft lips, which no doubt, brings the best results in his hands. However, he cautions against experimenting with various techniques, and advises that each operator find the method which yields good results and use it.

Whether the Rose or Mirault technique is used, or a modification of them, or the author's technique for bilateral cleft lip, does not matter, as long as the result is good.

Palates may be closed by the method of Ernest & Halle, Von Langenbeck, Dorrance,<sup>11</sup> Voe,<sup>28</sup> Wardhill,<sup>29</sup> Brown,<sup>5-6</sup> etc., but the technique suitable and successful for the case in hand should be chosen. Closing a palate in a number of stages should be avoided.

One comes in contact with individuals who have had many operations for the closure of these clefts. Some have had as many as forty or forty-five operations and still there is no closure. These individuals naturally have a disturbed

blood supply, and therefore, construction of such palates with pharyngeal tissue is better than the use of extra oral tissue or an obturator.

Wardhill's<sup>29</sup> reefing forward of the superior constrictor is successful in some cases.

Particular care must be exercised in lengthening palates not to risk perforations in the hard palate when setting back the flap. If this does occur, it is best to return the flap to its original bed and try again at a later date.

The denuded bone is covered with granulations in about two weeks, and in a month one can hardly tell that the tissue was lifted and replaced.

Clefts of the hard and soft palate should be closed in one stage if possible. To close the hard palate first and later as a second stage to attempt to close the soft palate, necessitates a second anesthetic and produces an undue amount of scar tissue. The method the author



Figure 11. Artist's sketch of closed right sided cleft palate and macrostomia.

uses in closing complete clefts of the hard and soft palate is one that he has developed by taking the good points from all sources and adding some of his own. It is quite satisfactory in his hands because most of his palates close completely in one operation. When he does have a failure it is a small opening at the junction of the hard and soft palate where the cleft is widest, the blood supply poorest and the tissue the thinnest. Openings in this locality usually close spontaneously within three or four months. The baby should have a rest period of that length of time before being examined again to see if the opening has closed.

The technique he usually uses is simple. The baby is held on the table by means of a canvas strap about 4 inches wide, placed under the infant's neck and then brought over the shoul-

ders and tied to the foot of table. This permits use of the Trendelenburg position after anesthesia is induced. The author always sits down to his work; he can work more carefully and it is less tiring. The head of the baby being low, and the feet high, blood and mucus accumulate in the naso and oropharynx, thus reducing the incidence of aspiration pneumonia.

The Lane mouth gag is used because there are no teeth present. A piece of suture material is passed deep through the body of the tongue to hold it forward during the operation. (Many of these children are partially tongue tied; if so, it should be corrected at this time. The next step is to start a line of cleavage where the palatal tissue joins that of the nose and then raise the mucoperiosteal flaps from the hard palate with the subperiosteal elevators. When sufficient tissue has been relaxed the flaps are held up alternately on each side and with a straight chisel, the mucous membrane reflected from the floor of the nose to the soft palate, is severed by running the chisel along the edge of the palate bone to the distal end of the hard palate. A fine tenaculum is now used to hold the edge of the soft palate while it is split along the medial edge. The soft palatal tissue is not cut off and discarded to get a fresh surface for this wastes valuable tissue. Use a fine tenaculum to steady the tissues, instead of a tissue forcep; compressing the tissues with a forcep is not conducive to good healing. At this point determine whether it is necessary to relax the structures still further to get good approximation without tension. If more relaxation is needed make the typical incisions at the heel of the upper jaw and with a chisel dissect and strip the tensor palati muscles off the hamular processes and pack the incision with a piece of iodoform gauze impregnated with compound tincture of benzoin to release still more the tension on the suture line. If the flaps now approximate each other without a suture, one can be satisfied that the palate will heal by first intention. The three most important factors in all plastic surgery are: adequate blood supply, relaxation of tissues so there is no tension on suture line, and proper coaptation of similar structures. The first part to be closed in the suturing of the palatal flaps is the nasal mucous membrane on the soft palate. This is approximated with number three 0 chromic gut suture



Figure 12. Right sided cleft palate.

mounted on a small full curve needle. The needle is started in the nasal surface of the mucous membrane on one side, passed out midway through the muscle in the split edge of the soft palate. Just the reverse is done on the opposite side; into the muscle and out on the nasal mucous membrane and then tied with several knots. The ends are cut off short and by means of these simple interrupted sutures, the entire nasal surface of the soft palate is closed. All the knots are on the nasal surface of this portion of the palate. The chromic gut sutures need not be removed. The number 6-0 nylon mounted on an atraumatic needle is now used to place mattress sutures throughout the length of the hard and soft palate tying 5 or 6 knots in each suture and cutting the ends off at the knot. Then simple interrupted sutures are placed along the entire palatal surface, tight enough to permit no leak of air or fluid through the suture line. This gives a broad contact of raw tissue without tension. The solid shaft nylon of 6-0 caliber gives a cleaner surface to the palate than any other suture material used. The author has tried horse hair, silk, dermal, dermic and others but none has the merits of nylon. What impressed him most with the nylon suture material is that all the sutures put into the tissues must be removed. This is not true when using other suture materials. They cut out or fall out and gather food and other foreign material and are quite dirty. Nylon remains clean, without irritation to tissues and is very strong and resilient.

This operation should be done when the baby is from two to six months old.

The babies are usually returned to bed with the suture in the tongue so that any obstruction can be readily cared for. It is removed as soon as full consciousness returns. The child can now be fed by any means except gavage or nipple, starting three hours after the operation. The Breck feeder, medicine dropper, medicine glass, teaspoon, etc., are all serviceable.

The most important part of the post-operative treatment is proper and adequate sedation. This is occasionally interfered with when the baby develops an oedema of the pharynx from the pharyngeal packs of iodoform gauze. These should remain in place for at least one week and it may be necessary to place the baby in an oxygen tent to make respiration less labored; in extreme cases it may be necessary to remove one or even both packs before the week has elapsed. Occasionally allow the packs to remain 9 to 10 days before removal. Sedation is effected with elixir phenobarbital one drachm P.R.N. to keep the baby groggy. Occasionally the child will refuse its food if the sedative is added to the milk and sometimes even when the elixir is given between meals. In such cases sedation is obtained by the use of nembutal suppositories,  $\frac{1}{4}$  gr. P.R.N. These suppositories are supplied containing  $\frac{1}{2}$  —  $\frac{3}{4}$  and one grain of the drug and must be broken and used accordingly. It is necessary to keep the patient from crying for at least one week, preferably two weeks. Usually the first week after the operation is the hardest: the child will be quiet the second week without sedation.

The loss of blood and other fluids, such as saliva, perspiration, urine and even mucus, etc.

is an important problem requiring careful attention during the post-operative period. At the time of the operation instruct the intern or resident in the immediate post-operative course to restore the fluid balance. The infants receive 20 cc of whole blood, preferably from one of the parents, immediately postoperatively, if necessary. If more fluids are desired 100-150 cc of physiological salt solution is given subcutaneously in the thigh on each side but not under pressure. Physiological salt solution, in small quantities, can be given subcutaneously with a 20 cc hypodermic syringe. All the 5% glucose and 3% soda bicarb that the baby will take, is given per mouth between meals for the first 24 to 48 hours. The importance of fluid balance and restoration of chlorides should be remembered when the infant runs a temperature. Small quantities of fluids (2 or 3 drachms) can be started in some cases at  $\frac{1}{2}$  hour intervals as soon as the baby regains consciousness.

Arm cuffs are important to keep the baby from getting its hands to its mouth, sucking its fingers or placing foreign bodies in its mouth. A palate can be ruined in half a minute if an arm cuff comes off and the child gets its thumb in its mouth.

At times babies develop a nasal discharge. A few drops or a spray of a 5% sodium sulfathiazole solution applied to the nares every three hours is very beneficial. Many preparations and immunizations have been used before the advent of the sulfonamide drugs, but the one above mentioned seems to be the best to date.

Some surgeons do not operate on cleft palates during the winter months. The author does not follow this procedure. Undoubtedly the babies are more prone to colds in winter, but his success has been just as complete in winter as in summer with the exception of the winter of 1939-1940. That winter 5 babies had a peculiar, uncontrollable, copious discharge, starting on the 4th post operative day. Two days later the palate opened. These cases were all operated on in the same institution and within a period of three months. It never happened before nor has it since that date.

Many articles have been written about the optimum time for closure of cleft lips and palates and just as many excuses have been offered for choosing different ages. Surely they cannot all be right.

When one weighs the reasons pro and con, one can easily see why there is such a difference of opinion among operators.

An experienced surgeon knows when he will be most successful with a certain piece of work and this, the author believes, should be the guide in setting the time for operation. The older the baby the easier is the work for the surgeon, but the more certain also that some inherent qualities are lost. The older the baby the more bad habits will it have formed. These factors lead one to close these defects as early as possible. This is good logic and *must* be decided by the success one has had at a definite age. Unlike a broken bone or a bad laceration on the arm or leg, which even with a poor correction and an imperfect result, allows the patient to carry on, a bad facial blemish or a defect of speech through life, is very serious. This statement is made because babies are born with certain inherent qualities. They retain all these qualities if allowed to develop normally. The loss of some palatal or lip tissue is quite detrimental in some cases. This is a challenge to the man doing this type of surgery, for he should aim for 100% success wherever possible. An operator who defers these operations to ages ranging from 16-18 months to what is much worse 5 or 6 years of age, often has done irreparable harm.

The author knows all these babies and children have:

1. Lost some inherent qualities, such as:
  - A. All fine, coordinated movements of the lips, the tongue, the superior constrictor, etc.
  - B. Speech defect is the result.
2. They are prone to develop an otitis media due to lack of ventilation of the middle ear. Some of the muscles of the palate have their origin in the cartilaginous portion of the eustachian tube and, if they can not function, prevent proper ventilation of the middle ear.
3. Chronic otitis media leads to chronic progressive deafness.
4. Improper warming, and moistening of the respired air produces an atrophic pharyngitis.
5. The entire life of the patient may be ruined by poor management of the operation and poor after care.
6. These people cannot meet the keen competition of today if they are so handicapped.
7. And last but not least, an inferiority complex develops in at least 80%, for which the facial blemish and speech defect is principally responsible.

All the detrimental features mentioned above can be eradicated by good surgery done early. Operative care of the baby, making it anatomi-

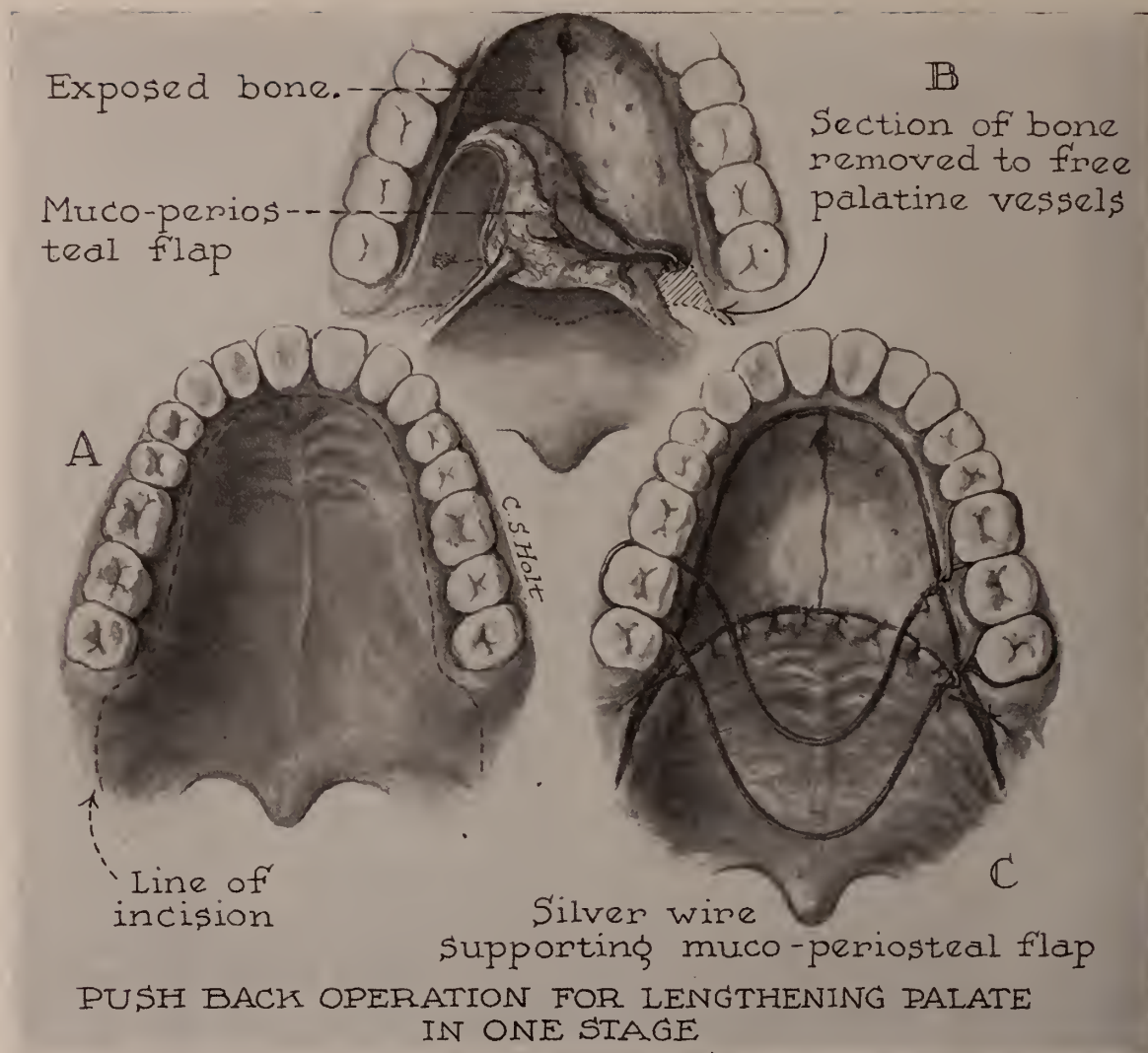


Figure 13

cally perfect before it is 6 months old is paramount. Just what is the best age to complete the closure is a problem which should be decided on the findings of the case in hand. Closure of the palate before the baby is from 4 to 6 months old, goes far to insure normal speech.

Much can be done for speech defects by surgery and instruction. The surgical correction of a short palate is best accomplished by one of several methods. The Dorrance<sup>11</sup> pushback operation is one of them and is done in two stages. This transposes backward the entire palate, giving additional length of  $\frac{1}{4}$  inch to one inch to this structure.

In 1936 Brown<sup>5-6</sup> described the lengthening of palates by dissecting all of the palatal tissue from the bone and setting the flap back so the anterior border of the flap is attached to

the posterior border of the bony hard palate. In this way an added length of soft palate is obtained equal to the amount of bone uncovered. The greater palatine vessels are conserved in this dissection.

The author has found this method very satisfactory in some cases because the palatal tissue does not get as heavy as in the Dorrance operation. When he uses the single stage palatal set back, he also cuts the bone away around the greater palatine vessels, and in some cases dissect out the artery from the palatal flap to get more freedom. The anterior border of the palatal flap is sutured very carefully to the distal end of the hard palate with 6-0 nylon suture material, and in older children or adults, a silver wire splint is fastened to the teeth and is arched as shown in the accompanying diagram to hold back the

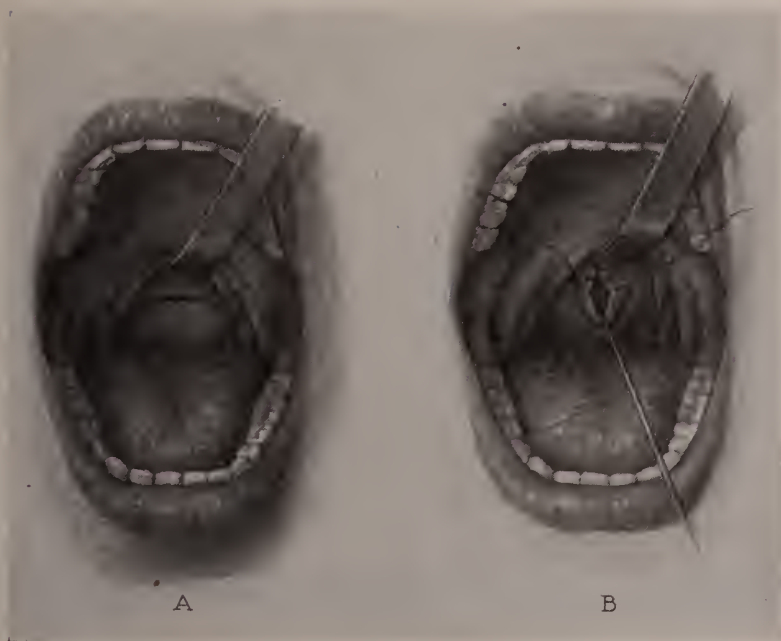


Figure 14. Reefing operation to produce Passavant's cushion.

palatal tissue still further until it has thoroughly healed. This prevents much of the shortening which would likely take place if the splint was not used. (Figure 13.)

By this method less scar tissue results, a more pliable soft palate is produced and the closure of the wide naso-pharyngeal space is facilitated. Many surgeons claim the preservation of the arteries will prevent the elongation of the palate. With the technique just described, I am sure they will agree that the palate is markedly elongated. If the principal blood supply is cut at the time of operation it is best to use the delayed flap method of Dorrance<sup>11</sup>. If the arteries have been cut previously, it may be possible to do a direct set back if the blood supply is found to be adequate.

This wide dissection will not interfere with the levator or sphincteric action of the musculature.

The splinting of pillars and union of tissue below the level of the uvula should be discouraged because of the lack of function and the formation of a more membranous sheath without action. True, this membranous sheath is better than no tissue at all or an obturator. The tissue can usually be placed there if the direct flap method is used and if that is not sufficient, then Brown's<sup>5-6</sup> technique of "Double Elongations of partially cleft palates and elongations of palates with complete clefts," surely will give

sufficient length to facilitate good speech and deglutition.

All of the foregoing corrections must be completed for perfect speech, including a perfect contact of the palatal surface with the posterior wall of the naso-pharynx. In 1869 Passavant described a muscular body or what he called a "crossroll" on the posterior wall of the nasopharynx. He took the position that this is essential for perfect speech. These observations were made on an individual with a cleft palate which made it easy to see this portion of the anatomy. This muscular body was apparently not discussed further until Wardhill<sup>29</sup> in 1929 said that his colleague, Whillis<sup>29</sup> had discovered muscle fibers in this region which caused this bunching to occur. In 1930 Whillis called this ridge the "palatopharyngeal sphincter."

Passavant's cushion or Jacobson's valve is enlarged, if needed, by bunching the superior constrictor muscle. This is beneficial when the naso-pharyngeal space does not close as it should. (Figure 14.)

The third method of closing or narrowing the naso-pharyngeal space, is the injection method, devised by the author. This consists of depositing one or two cc of a mild sclerosing agent into the superior constrictor muscle on the posterior naso-pharyngeal wall and pillars which allows contact of the soft palate and therewith perfect speech. This thickening of the muscula-

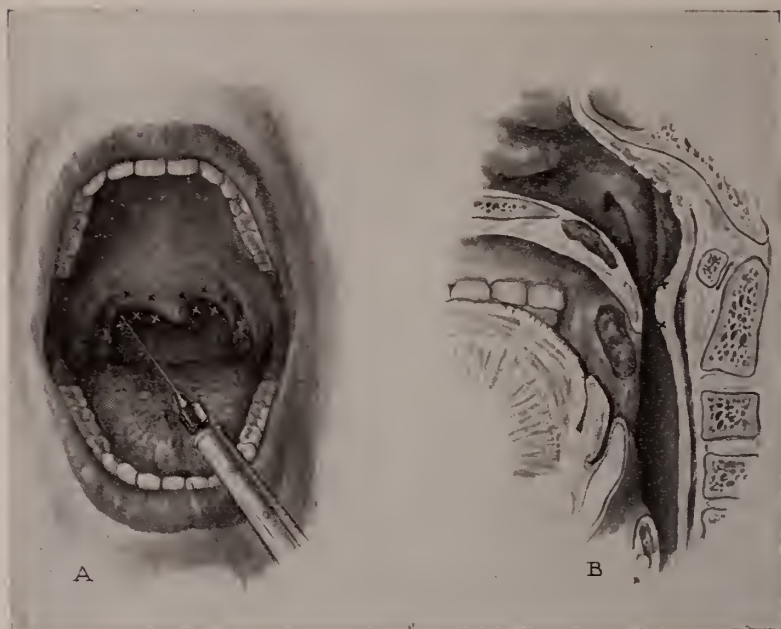


Figure 15. Injection method to produce Passavant's cushion.

ture does not last if only one injection is made, hence a series of 4 to 6 or 8 injections weekly or biweekly intervals may be necessary. A recording of the voice should be made before treatment is started and again when the treatment is completed. As a rule, there is a decided improvement in speech after the first treatment which is partially lost in a few days due to subsidence of the reaction. (Figure 15.)

A baby, properly handled, cannot appreciate what has been done for it but the parents see and note the change as the baby attains normalcy. The obligation of the surgeon does not end when the child is 4 to 6 months old; he should watch its development, see that the jaws develop normally and if the services of an orthodontist are necessary, he should so advise.

The prognoses in all these cases is good when the process of construction is carried out with forethought and skill.

#### SUMMARY

To summarize the most important factors in obtaining good results in cleft lip and palate surgery:

1. Sit down to do your work.
2. Start at three to four weeks of age for cleft lips.
3. Start at three to six months of age for cleft palates.
4. Baby to be of proper weight for age.
5. Diet must agree with baby.

6. Palates to be done with baby in a Trendelenburg position.
7. Use Anthony aspirator instead of sponges for bleeding.
8. Complete relaxation of tissues.
9. Conserve blood supply.
10. Use the very smallest of needles and suture material.
11. Baby should not be older than six months for palate closure unless a serious dietary or weight problem interferes.
12. Winter is no excuse to defer operation.
13. Palatal failure is due to technique, tension and blood supply, not infection.
14. Post operative treatment, as described, extremely important.
15. Place baby on side when returning from operating room so no blood or mucus will be inhaled or swallowed.
16. Fluid 30 minutes post operatively, all baby will tolerate.
17. Regular diet three hours post operatively.
18. Thin cereals to be given if baby can swallow it.
19. Allow no one to look at the palate with a tongue depressor.
20. Naso pharyngeal catheter for oxygen taped to face and nose if respiratory embarrassment is present. Small oxygen tent if necessary.
21. Aspirator to be in room at all times if it is

likely to be called for.

22. Adhesive tape on lower lip if it is sucked in and blocks respiration.
23. Tongue suture to be removed when baby is fully awake and breathing normally.
24. Sedation paramount first week post operatively on palates.

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#### DISCUSSION

Dr. Frederick W. Merrifield, Chicago. — It is a pleasure for me to be here to discuss this paper, particularly in the light of the preliminary remarks of Dr. Schultz. When he spoke of it being a particular hobby, shall I say, of his it struck a responsive chord

in my heart because you've got to like children if you get interested in this work. I appreciate his remarks, and I hope you will too, because in my opinion there is no operation, there is nothing that can be done for a child or for a human being which does so much as a repair of a hare lip or a cleft palate. The child can have club feet, can have congenital hips, can have wry neck, and those children can get by — people will come forward to help them over the rough spots — but they don't do that for a person who walks down the street with a hare lip. I think that Dr. Schultz and I agree on that point at any rate, and I don't think we are very far apart on the rest of it.

The operations done for hare lips and cleft palates are almost as old as the hills and these deformities date back to the beginning of the human race. I think it was in about 1760 that the first operation was done by a French dentist — at least that is the first recorded operation — and since that time there have been a host of men who have contributed to the knowledge and to the advancement of the art of repairing these deformities.

When I first became interested in the subject I was bewildered by the number of operations which were available and by the differences of opinion of which one could read. In sifting those out, however, there wasn't such a very wide difference of opinion. In my confusion, I talked this matter over with an old preceptor of mine, Dr. Gilmer, whom some of you may have known, and he said, "The best thing for you to do is to pick out a good operation which you know will work and then build up your own operation around that."

I think that there will be no disagreement on that advice as far as Dr. Schultz is concerned. These men have all contributed something of their knowledge and experience. Since the early days of the repair of hare lips and cleft palates there have been very many advances, and perhaps the greatest advances have been in the employment of linings for some of these flaps that are taken up. Very often the flaps were left without linings, and we now are becoming more and more aware of the changes that go on in an unlined flap. I think the chief exponent of that type of technique is Dr. Dorrance, and Dr. Ivy of Philadelphia has referred to that idea, and Dr. Schultz is using it in his work as you noticed on the film.

Another thing that has been done is to facilitate the lengthening of palates. No matter at what age a palate is corrected, some still remain short and they do not close off the nasol pharynx. Many operations have been devised to aid in doing that. Some of them have brought forward the pharyngeal wall, but the work of Dorrance and J. B. Brown has contributed to the elongation of congenitally short palates and improves very definitely the facility of the patient to speak.

What about the time of doing these operations? Dr. Schultz has told you of the early age at which he operates both lips and palates. I was brought up in a little different school, and there are many people

who believe that the operation should be done at different times.

We believe that a single hare lip should be closed as early as possible. Blair goes so far as to say that within 48 hours the lip should be closed, and he says that he believes at that time the baby has a certain immunity and can stand things that a week later it cannot stand.

Perhaps the optimal time of closing the lip is, as Dr. Schultz says, within two or three weeks, but I think the fundamental point there is that the baby should be in condition to withstand any such operation. If the baby is operated as early as Dr. Blair advocates, he contends that you don't have to concern yourself particularly about the metabolism of the baby, but at the end of two or three weeks you have found out these things; you have found out the baby is functioning; you have found out anything that can be found out about any deformities which may be associated with hare lip and cleft palate, and you have found out that a baby can take a certain formula.

To operate on a baby and to then find out that you don't have a formula under which the baby can thrive is not very good for the baby, is it, Dr. Schultz? And that is the point in favor of the operations which occur two or three weeks or longer after birth as far as the closing of the lip is concerned.

I found out something quite recently that I thought I never would come to. We had always insisted that following operation the baby should be fed very, very carefully, usually with a medicine dropper, so that the motion of the lip could be limited as much as possible. A particular baby was not doing very well, and the baby was getting no food and no fluids by mouth. Up to the time of the operation the baby had been gavaged. As I watched that baby being gavaged for the first time there was not a motion of that lip. I think a baby can be gavaged and the feeding of medicine droppers is not to be taken too seriously. If any one of you have tried to feed a baby with a medicine dropper you know it is a chore such as very few of us would care to undertake, and I am inclined to think more of gavaging for babies in the presence of a single repaired hare lip.

As far as the sequence is concerned, we have followed in our work the sequence of closing the lip first and closing the palate anywhere from eight or nine months to a year and a half later. We believe that closing the lip can be done, the repositioning of the nose and the reconstruction of the nose can be done at one operation and very early, and that the action of the lip will help close the cleft, which we don't attempt except by manual pressure. The second operation would involve the closing of the palate.

I am entirely in accord with Dr. Schultz's method of closing double hare lips. I was very glad to hear him say that they are easier than the single hare lip, and I thoroughly agree with that. They look rather hopeless to the lay person or to the medical man who is not used to seeing them, but in my own experience they are much easier to close and the results are usu-

ally more symmetrical than the single or unilateral clefts. The reconstruction of the nose and nostril and floor of the nose is, of course, the most important point in closing the single hare lip.

As far as the feeding is concerned, I think I have covered that in my remarks on the feeding of the baby under discussion. The baby should be brought to the operating room in good condition, in condition that you can control, and with the knowledge that that baby can be carried through following the operation with no adjustment necessary, and so that it will progress to complete healing and recovery from the operation.

I thought that Dr. Schultz might say something about closing of clefts by means of the repositioning of the bony structures. I know that he follows a molding method which is carried a little further than we use, but some of the men who have worked in this field have actually cut the bones to push the palate in position. We think that is a rather severe operation and we depend upon the lip to do that.

While the tongue is a very important organ, and while the inference is, in listening to the remarks this afternoon, that the tongue causes a lot of trouble in widening of the cleft, it is not true, as a matter of fact, because any one who has closed the lip and left the palate for a period of months will always find that the closure of the palate in some cases is quite remarkable and that the closure of the cleft amounts to one-half to three-quarters of an inch in some cases. We believe that it is much better to have that sort of thing done naturally than it is to interfere with bony structures and invite trouble with the nasal cavities.

The operation of the late Dr. Brophy was an operation of that type, although the bone itself was not interfered with except as it involved the passing of wires which forcefully drew the palate and tissues together. The operation was criticized for its severity, and also criticized because of the destruction and the shifting of the tooth buds. Dr. Logan, some few years before he died, developed a refined technique of that same operation in which he found ways and means of avoiding those tooth buds.

I think it is needless to say any more. I think that Dr. Schultz has made a wonderful presentation. I congratulate him on his movie which was very clear and easily seen and understood. As I say, we have used and are using a similar method of closing the double hare lip. The only other thing that I would like to say, is that in closing the double hare lip we have followed the plan of cross-lapping the vermilion border from the sides in order to avoid the shortening or to overcome the shortness of the central portion, the premaxillary portion of the vermilion border attached. A cupid's bow should be long in the central portion, and we have thought to have improved on the shortness that sometimes comes to those lips by cross-lapping the mucous membrane with the vermilion border over the central portion. Not to the degree that has been done in some cases by taking laps from the sides, cutting off the vermilion border, sewing

them together and producing a very tight lower lip which is very unsightly and not at all good, but this is merely a cross-lapping of the vermilion border itself.

I think I have been highly honored to be asked to discuss this paper. Thank you very much.

## THE TREATMENT OF VARICOSITIES INVOLVING THE INTERNAL SAPHENOUS VEIN

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Before presenting the main subject of this paper, it may be well to first review certain anatomic and physiologic facts concerning the venous circulation of the lower limbs which form the basis or rationale of the modern treatment of varicose veins, in the light of the development of therapeutic procedures for this condition. First, as to anatomic considerations: the internal saphenous vein courses from the ankle along the internal aspect of the leg and thigh to empty into the femoral vein in the fossa ovalis. Unlike the deep veins of the lower limb, which are surrounded by muscles and are affected by their actions, the internal saphenous vein is situated between the subcutaneous fat and the superficial fascia. In the leg, this vein breaks up into many tributaries, while in the thigh, with the exception of its uppermost portion, it is practically a straight tube. There are normally 8 to 14 valves in this vein, equally distributed in its leg and thigh portion. Kampmeier<sup>1</sup>, in a study of venous valves in human fetuses and adult cadavers, pointed out that there is considerable variation in the thickness and number of these valves in the saphenous system. In the specimens examined, there were found the following variations from the normal: the valves were unicuspid instead of bicuspid, or, if bicuspid, were too shallow; or, they consisted only of the media instead of the intima, media, and muscle fibers; or, were too few in number. In adult cadavers, these valves often showed evidence of retrogressive changes. It is easy to understand how these variations from the normal can contribute to the formation of varicose veins.

The upper tributaries of the internal saphenous vein are usually five in number — the superficial epigastric, the superficial circumflex iliac, the superficial external pudendal, the superficial medial femoral, and the superficial lateral femoral, veins. The first two tributaries sometimes anastomose with the femoral instead of the saphenous vein. The last four mentioned may reanastomose with the main saphenous trunk lower down in the thigh. Edwards<sup>2</sup>, who made an excellent study of these tributaries, pointed out that the upper three anastomose with the main trunk less frequently than the lower two. Failure to sever these tributaries from the main vein may result in the short circuiting of a high ligation which is not followed by permanent obliteration of the saphenous vein.

Normally, the blood in the internal saphenous system flows towards the femoral vein. In the varicose state, particularly in the standing position, this phenomenon is reversed. Formerly, it was thought that reverse flow was a major factor in the chronicity of varicosities. However, it is now quite well established that it is the positive pressure in varicose veins rather than the reverse flow which is the important factor. It has long been known that the positive pressure in the saphenous system affected by varicosities may reach enormous proportions. In 1902, Delbet<sup>3</sup>, using the direct method, obtained a reading of 260 mm. of mercury in a patient with varicose veins. Since then, it has been definitely established thru the work of Villaret<sup>4</sup>, McPheeters<sup>5</sup>, Adams<sup>6</sup>, and others that the average positive pressure in the internal saphenous system moderately or severely affected by varicosities is between 60 and 85 mm. of mercury in the erect position. Adams<sup>6</sup>, in a recent study, pointed out that this pressure is a pure gravity effect and that straining caused this pressure to be markedly increased in patients in whom there was evidence of valvular insufficiency. Adams studied pressure variations in nine patients with varicose veins involving the internal saphenous system. In six of these patients, with an average pressure reading of 78 mm. of mercury, there was a rise to a figure well above the normal arterial systolic pressure on straining. In one patient, the reading was 224 mm. As was first pointed out by de Takats<sup>7</sup> in 1929, Adams also concluded that simple ligation had little or no effect on the gravity pressure but simply elim-

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inated the pressure due to straining. It is obvious that the erect position, pregnancy, the straining associated with many types of work, with cough, defecation, and other functions are important etiological factors in the formation of varicose veins, particularly in individuals who inherit either an insufficient number of valves or valves of inferior structure. These factors are also responsible for the progressive nature of the varicose state.

The injection treatment of varicose veins was practiced extensively in this country in the period between about 1925 and 1931. However, it was soon found that this mode of treatment was followed by a high percentage of recurrence. Howard and his co-workers<sup>8</sup> reported a recurrence rate of 79%. It is our belief that the chief reason for the high percentage of recurrence following the simple injection treatment is that the thigh portion of the saphenous vein remained unobliterated in most cases. This was stressed by McPheeters<sup>9</sup> who, in 1931, stated that the existence of a column of blood in the unobliterated thigh portion exerted pressure upon the thrombosed veins below and so contributed to their recurrence. McPheeters<sup>5</sup>, in 1932, in order to eliminate the patent thigh portion, recommended injection of the internal saphenous vein from ankle to upper thigh in one sitting without, however, a preliminary ligation. Thrombosed veins, unless accompanied by a severe periphebitic reaction, have a tendency to recanalize. The added factors of gravity and straining pressures hasten the process of recurrence.

In 1930, de Takats<sup>10</sup> introduced the operation of preliminary vein ligation in this country. While this operation was done earlier in Europe by Home<sup>11</sup>, Trendelenburg<sup>12</sup>, and others, it should be pointed out that these earlier surgeons performed this operation in the region of the knee and for the purpose of eliminating back pressure in extensive varicosities and ulcers or for obviating embolism in the injection treatment. De Takats stressed that this operation should be done at a high level and as an ambulatory procedure. While simple ligation followed by injections of sclerosing solutions resulted in fewer recurrences, it was soon found that recanalization occurred in many instances. We feel that the chief reasons for these recurrences are the same essentially as those men-

tioned for the simple injection treatment. In women, in whom varicose veins occur in the ratio of 3 or 4 as against men, the thigh portion of the internal saphenous vein is often covered by a rather thick layer of fatty tissue. This factor, plus the relative collapse of the veins following simple ligation, due largely to the elimination of the straining pressure, make palpation of the saphenous vein in the thigh for the purpose of injection rather difficult. While the effect of the straining pressure is eliminated by ligation, a gravity pressure equivalent to the height of the thigh portion of the vein remains as a factor in recurrence.

In 1934, Faxon<sup>13</sup> and Howard<sup>14</sup> independently suggested retrograde injection with a sclerosing solution during high vein ligation. As in the case of simple ligation, retrograde injection was also practiced earlier by Tavel<sup>15</sup>, in 1904, and Moschowitz<sup>16</sup>, in 1927. However, both these writers performed this operation in the lower thigh and employed coagulants instead of the sclerosing agents used today. They also put their patients to bed for a week or more, a procedure which obviously favored embolism. Since 1935 or 36, this method of treatment has been generally accepted as productive of the best results. Obviously, it insures obliteration of the thigh portion of the saphenous vein which is necessary in order to eliminate the effects of gravity and straining pressures which contribute to recurrence.

However, severe and disabling reactions accompanied by fever often follow retrograde injection. Lowenberg<sup>17</sup>, in 1937, in order to avoid the disability, pain, and swelling resulting from the chemical thrombophlebitis of the whole internal saphenous system, stated that he regularly ligated this vein at the level of the knee prior to high ligation and retrograde injection. Harkins<sup>18</sup>, Hawkes and Hewson<sup>19</sup> stated recently that they have abandoned retrograde injection because of severe reactions requiring bed rest. Our experience has been essentially the same since 1936, when we began to employ retrograde injection. We found that one-half to two-thirds of patients thus treated had to be put at bed rest for periods of 5 to 10 days. This of course defeats the ambulatory nature of the injection treatment.

Since the advantage of retrograde consists in its insuring obliteration of the thigh portion of

the internal saphenous vein, a method, preferably non-operative, which will limit the chemical thrombophlebitis to the thigh portion would be desirable. I have described such a method in detail in a previous publication<sup>20</sup>. Briefly, it consists of producing a thrombotic barrier in the saphenous vein at the level of the medial condyle of the femur by the injection of a sclerosing solution. 175 patients have now been subjected to this procedure. In 108 cases, a satisfactory palpable thrombus was obtained after the first injection. In 46 cases, 2 to 4 injections at intervals of 3 to 4 days were necessary, while in 19 cases no thrombus was obtained after 4 injections.

The experience with 2 patients was illustrative of the importance of recognizing and properly treating those patients with a history of, or definite evidence of, phlebitis. In the case of these patients, no history of previous attacks of superficial phlebitis was obtained at the first examination. Injection of 1 c.c. of Sodium Morrhuate at the knee was followed in each case by thrombophlebitis involving the vein and its tributaries from groin to lower leg. Further careful questioning of these patients disclosed that 2 to 3 years previously there had been redness and tenderness over the veins of the leg. This procedure, we believe, should not be employed in cases with a history of superficial phlebitis or those who present evidence of previous attacks, such as old, organized thrombi, discoloration of the skin over the veins, induration, etc. It is our belief also that only a simple ligation be done in these cases, since often this is followed by retrograde thrombophlebitis of the whole saphenous tree and also because retrograde injection usually results in very severe reactions in these cases.

High ligation and retrograde injection is done 8 to 10 days after the successful injection at the level of the knee. This interval of time is necessary in order to insure a firm thrombus. Not more than 2 to 2½ c.c. of sclerosing solution need be injected to insure obliteration of the thigh portion of the vein. About two weeks later, the injection of the patients leg varicosities is begun and is continued at weekly intervals.

The majority of the 154 patients thus treated have not experienced any disability beyond the first day. We believe that this method eliminates

the undesirable features of retrograde injection by limiting the inflammatory process to a smaller area and by making locomotion easier.

#### SUMMARY

1. The more important anatomic and physiologic facts which contribute to the etiology of varicose veins and which form the basis for the modern treatment of this condition are reviewed. Their relation to the gradual evolution of the high ligation-retrograde injection treatment is discussed.

2. High ligation and retrograde injection, when successful, is followed by thrombophlebitis and periphlebitis of the whole internal saphenous tree from groin to ankle. Often, this causes disability of a week or longer.

3. The thigh portion of the internal saphenous vein must be obliterated in order to attain permanency of results.

4. The experience with 175 patients in whom a non-operative method for limiting the thrombophlebitis to the thigh portion of the vein is presented.

5. It is concluded that this method is associated with a minimum of disability and discomfort.

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#### DISCUSSION

Dr. Geza de Takats, Chicago: I have been rather embarrassed by the prominent mention of my name by Dr. Gault in connection with ambulatory vein ligation. I assure you I did not have the opportunity to read his paper beforehand since I would have tried to point out to him that the first ambulatory vein ligation was performed by Celsus 400 years before Christ.

It is interesting to read the description of this operation and to realize that one-third of Celsus' patients became delirious, probably due to sepsis, and another third became "melancholy" or died, probably because they developed an embolism. It certainly is a far cry from these attempts to decrease the back pressure from above to the modern aseptic methods of treatment.

This problem has been neglected for many, many years, and this problem is important because at least 10 percent of the adult population suffers from varicosities of various intensity. Today we know that a large number of young men can be rehabilitated for the armed services if these varicosities can be adequately treated.

I think it bears emphasis that the routine injection of the varicosities is a useless procedure. It is true that the patients obtain some temporary relief, but the percentage of recurrence, as Dr. Gault has pointed out, is so high that ultimately these patients will have to obtain relief by vein ligation.

There is no earthly reason why this vein ligation cannot be carried out by the general practitioner who does his own minor surgery, except that it should be realized that an adequate vein ligation, as Dr. Gault emphasizes, should include all the visible tributaries of the internal saphenous vein.

This operation is a slow, delicate procedure. For some time we have been timing these operations and have found that it takes us a little longer to do an adequate vein ligation than to do a lumbar sympathectomy. It takes from 35 to 40 minutes to do a careful dissection of the entire region, to inject the solution distally and to secure complete hemostasis.

Dr. Gault has emphasized the point, that unless the thigh-portion of the saphenous vein is obliterated the percentage of recurrence will be high. That is very important. One procedure that we have followed in our work is to use a much milder irritant for injecting the distal segment than the type of irritant that we use

for injecting the varicosities in the lower legs. Mild irritants, such as 50 percent dextrose and 20 percent salt solution will perhaps produce less phlebitis than the usual injection of sodium morrhuate or other fatty products.

The causes of failure which occur, even though the vein is adequately ligated, even though the distal segment is injected, and even though the perforators are injected below the knee, come from one single cause, and that is the existence of increased venous pressure in the deep circulation.

The most frequent cause of this increased venous pressure is, of course, a previous thrombophlebitis in the deep veins. When the syndrome is recognized, one must admit that all efforts to obliterate the saphenous vein by a combination of high ligation and injections is futile.

The incidence of this high deep venous pressure is not very great—it is perhaps from 3 to 5 percent of the varicosities that we see—but when a physician recognizes this I think it is wise for him to tell himself and the patient that any effort to obliterate permanently the saphenous vein is just temporary and will be followed by a recurrence.

I want to emphasize again that while the problem of varicose veins has always been regarded as an unimportant one, a minor surgical one, it is a very frequent condition, generally rather poorly treated, and that in times of war it will rehabilitate a large number of young men for the armed services.

Thank you very much.

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#### COLIC DUE TO CRYSTALURIA

MAJ. SIDNEY W. RAYMOND, M.C. AUS.

(BS, MD, FACS)

Crystals in the urine are found under a variety of conditions, both normal and abnormal. It is a condition which usually causes little or no inconvenience to the individual; however, following the use of sulfonamides without adequate alkalinization, painful extra-renal deposits without stone formation are seen. This same course of events occurs among troops stationed on coral islands in the South Pacific, evidently due to large amounts of calcium in the drinking water. During five months at an evacuation hospital serving in this area, fifteen percent of all urological admissions were due to ureteral "sludge." No uncomplicated cases of gonorrhea were admitted.

All of these patients were of military age, usually in the third decade of life. Their army service varied from six months to ten years and their tropical duty from two months to a year. All phases of army activity, from service work

in a quiet area to combat on the ground or in the air were represented in those observed. The ratio of colored to white was about the same as that among the entire army population. None had previous sulfonamide medication. No cases occurred in troops at posts where distilled or rain water was used. No patient in the group had a previous history suggestive of urinary calculus or colic prior to coming to this area.

The attack usually came on rapidly, seldom abruptly, with unilateral or, less often, bilateral pain similar to but not as severe as colic due to calculus. It was sometimes preceded for several days by burning on urination. The pain occasionally appeared first as a dull ache in the flank and then increased to its greatest severity within a few hours. At its height it was often accompanied by radiation to the inguinal region, the penis, the testicle or the upper inner aspect of the thigh on the affected side. Some gave a history of minor similar attacks which were relieved spontaneously, occurring since arrival in the tropics.

Accompanying the attack there was usually an urgent desire to urinate. Some passed fairly large amounts but frequent small amounts was the rule. Moderate burning or scalding sensation occurred during the passage of the stream and mild terminal pain was frequent. Some patients noticed and commented on the cloudiness of the urine they were passing. Urination gave no relief and gross blood was never present. Large amounts of cloudy urine were often passed shortly after the pain ceased.

Vomiting was rarely seen altho nausea was sometimes present. Sweating, cool skin, pallor and other evidence of mild shock occurred in the severe cases. The attack was sometimes relieved spontaneously in from one to forty-eight hours but occasionally required morphine and atropine. Nitroglycerine was not used, as those who needed immediate relief were first treated at the company aid stations where morphine is readily available. Patients who received no medication and required a day or more to arrive in the hospital often had spontaneous relief.

Physical findings were few. There was flank or suprapubic tenderness but these were of short duration and disappeared on relief of the pain. The temperature was normal or slightly subnormal. Laboratory studies were of a limited

nature due to the forward location of the evacuation hospital. On admission each patient had a flat plate of the abdomen, a urinalysis and a complete red, white and differential blood cell count, the presence or absence of malarial parasites being noted. Before discharge to duty, all had either an intravenous or retrograde pyelograph made.

Nearly all urines were strongly alkaline; a few were neutral or weakly acid to litmus paper. The one constant finding was large amounts of calcium salts. This was in excess of that found in those who were hospitalized for any other condition. Occasionally a few red or white blood cells or cylindroids were found. Blood studies were normal.

Cystoscopy was performed in about half of these patients; in about one-fourth of those so examined there was a slight edema about the ureteral orifice of the affected side of a mild hyperemia of the entire bladder. The latter finding was seen most frequently if examined early in the attack.

X-ray findings were usually normal. In a few instances, where the plate was made at the height of the pain, the position of the lower ureter was hazily outlined. Comparison with later films in which an opaque medium had been used substantiated this finding. Films made after the disappearance of the pain never showed this shadow. Pyelograms were uniformly normal as all cases showing any abnormalities or calculi were eliminated from the group. If made early, a slight dilatation of the ureter might be apparent but disappeared on subsequent studies. Constrictions were never noted.

Immediate treatment for those in severe pain consisted of the administration of morphine, sometimes with atropine; this was never repeated after entrance to the hospital. Reliance was placed on flushing the pelvis and ureters with large amounts of fluid which were usually well tolerated by mouth. In addition, the urine was acidified by administering four grams of ammonium chloride daily. Where pain persisted beyond twenty-four hours, retrograde washing of the kidney pelvis and ureter was done with sterile distilled water or physiological saline solution. Citrate solutions were not used because the results were uniformly good with the methods employed.

On their release from the hospital, these patients were instructed to use sodium chloride tablets, one-half gram three times a day, to drink at least three canteenfuls (three quarts) of water daily and to use adequate amounts of cevitanic acid which is supplied by the army in the form of citrus fruit juices made up in the field from powders and concentrates. No follow-up has been possible because of troop movements, however, there were no re-admissions of any of the men who remained at this base.

#### DISCUSSION

These loosely formed crystalline collections are probably primarily due to the large amounts of calcium present in the drinking water combined with the profuse sweating that takes place even on moderate exertion. Fluid balance is easily maintained in hospitalized patients in the tropics as has been pointed out by Ferguson\*, the records for whose communication were derived from the study of patients in this hospital, but for reasons as noted may not always be present among troops. While drinking water was always available, the men frequently neglected to use adequate amounts because it became warm in their canteens or meant a walk to replenish their supply. Water is usually obtained directly from streams or by drilling either shallow or deep wells into the coral beds that make up a large part of Australasia. This water, whether from a stream or a well, has filtered through and been in contact with lime salts until it has become a saturated solution. Before use all water is chlorinated. As noted above, the condition did not occur in troops using calcium free water.

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San Francisco, Cal.

\*Ferguson, James H., Correspondence by, J.A.M.A., Feb. 26, 1944, Vol. 124, No. 9, pp 596.

*Civilian physicians need feel no chagrin when they see their colleagues in uniform. They can serve their country with the same high patriotism and with more lasting benefit to its health if they will solemnly agree to press relentlessly and with re-born ardor the fight along the home front for the conquest of tuberculosis. Kendall Emerson, M.D.*

## THE MEDICAL MANAGEMENT OF JAUNDICE

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AND

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Investigations of recent years have somewhat simplified the medical treatment of jaundice. They have shown that, independent of the cause (with the exception of the rare cases of hemolytic jaundice), the disturbance of the liver cells is somewhat identical in catarrhal jaundice (due to alimentary intoxication), infectious jaundice following various infections (upper respiratory infection, virus infection, pneumonia, etc.), toxic jaundice following exposure to, or medication with, hepatotoxic substances (arsenic, cinchophen, carbon tetrachloride), jaundice of pregnancy, Weils disease, or jaundice in cirrhosis as a sign of an exacerbating acute hepatitis. The differences are more a question of degree of liver involvement than of type. This group of diseases can be classified as parenchymatous or hepatic jaundice, or, as medical jaundice.

However, in jaundice due to changes in the biliary passages (tumors, stones, scars), commonly called surgical jaundice, similar changes in the liver cells may be present, as is found in medical jaundice. The retention of biliary substances causes damage to the parenchymatous cells and prolonged duration of the obstruction causes secondary hepatitis. Thus, there is a graded difference only between liver cell involvement in medical and surgical jaundice although this difference is important for diagnosis.

If we thus assume that the anatomical and functional disturbance of the liver is nearly identical in surgical and medical jaundice, the treatment should also be identical. Unusual diagnostic skill, therefore, is not required for medical treatment, but only to decide if additional surgical treatment is indicated.

The above points indicate that medical and surgical jaundice require the same medical man-

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agement. Such management should be curative in the medical type, and prophylactic, curative and preparatory for surgery in the surgical type of jaundice.

Knowledge of the pathological physiology of the liver is limited and the management will, therefore, take into consideration only the known facts. The results of physiologic and pathologic research of the last decade have proved to be valuable in the management of medical and surgical jaundice.

In this paper we discuss the management of jaundice, based on the experiences of others and our own. Since most functions of the liver are related to metabolism, to detoxification, and to excretion of foodstuffs, liver function can be most easily influenced by diet and the dietary regimen overshadows all other forms of treatment.

One of the oldest experiences in the pathologic physiology of the liver was that animals with livers rich in glycogen withstood various intoxications better than animals with a fatty liver. Therefore, increase of the carbohydrate intake and reduction of the fat is one of the oldest principles in the treatment of jaundice. Modern physiology has shown that the deposition of glycogen in the liver is dependent on a certain level of the blood sugar. In liver disease this regulation is disturbed and the blood sugar level must be higher than under normal conditions before glycogen is deposited<sup>1</sup>. An occasional additional disturbance is present from the hypoglycemic tendency in some liver cases. All this points to the necessity of a high carbohydrate supply in cases of liver disease. This should be around six to eight grams per kilogram of body weight.

A great difficulty in treatment may be early distaste for sugars (carbohydrates) which increases if the sugar administration is excessive. This is enhanced by the general anorexia. Therefore, sugar is best given in the form of fruit juices — of which lemon and grapefruit are the best. Fruits and vegetables high in carbohydrates, such as pears, peaches, bananas, pineapple, berries, beets, carrots, peas, potatoes, corn, are other good sources of carbohydrates. However, the oral administration of sugars will seldom suffice to raise sufficiently the blood sugar in severe cases. In these intravenous sug-

ar administration is indicated. It should be kept in mind that a great part of the intravenously administered sugar may not be utilized for nutrition. Some may overflow into the urine. The use of insulin, previously recommended in these conditions, appears irrational as it would lower the blood sugar level by utilization of sugar in the periphery.

The amount of glucose solution given intravenously depends on the concentration. Most of the clinicians prefer a 10% dextrose solution in distilled water, thus providing sufficient fluids to combat dehydration of the body — 1,000 to 2,000 cc. daily is usually given depending on the severity of the case, i.e. depending on how much carbohydrate can be given orally. If the liver is smooth, large and tender, a higher glucose concentration is advantageous. In such cases a toxic edema of the liver may be assumed. This hydro-hepatosis is due to a damage of the walls of the sinusoids in the liver which causes an escape of fluid-binding proteins into the perivascular spaces which in turn leads to an enlargement of the liver and stretching of Glisson's capsule. The latter accounts for the occasional occurrence of pain in the right upper quadrant in cases of hepatitis. The associated edema of the gall bladder bed in such cases may at times simulate an acute cholecystitis with localized tenderness in the gall bladder region. In such instances, hence, the administration of 500 cc. of a 25% glucose solution daily may dehydrate the liver itself and relieve discomfort. This higher concentration in addition is more prone to raise the blood sugar level to the optimal height.

The omission of fats in the dietary management of the jaundice case is an old principle. Limitation of fats in the diet reduces the fat content in the liver. It also reduces bile flow and even bile production and thus permits the liver to rest. The animal fats particularly are to be limited because in contrast to milk and butter fat they may lead to gastro-intestinal irritation which is undesirable since such patients have a priori dyspeptic symptoms.

The administration of proteins to jaundice patients was very much debated in the past. At present the question is settled. Originally the thought prevailed that protein administration means a burden for the liver since de-aminiza-

tion of the amino acids with urea formation occurs in the liver. Furthermore, since protein stimulates bile production the administration of protein counteracts the principle of rest for the organ which would seem desirable. However, regeneration of any organ and also of the liver requires sufficient protein. Animal experiments in the laboratories of Whipple and Ravdin primarily demonstrated that protein depleted animals stand hepatotoxic drugs much worse than those fed sufficient protein. Protein depletion means in this respect not only hypoproteinemia but also reduction of the protein stores of the organs before even the plasma protein level declines. Hypoproteinemia is a definite hazard by enhancing edema formation, interfering with healing and intestinal motility. In addition protein has a definite lipotropic action. Since some of the amino acids, e.g. methionine, definitely reduce the fat stores in the liver it is now realized that the old low protein diet in liver disease was harmful.

Not only is the quantity of protein important but equally so is the quality (type of the protein). Various experiments on animals with intoxication or with Eck fistulae have shown that meat is harmful to the liver in comparison to other protein sources. Much evidence, obtained mainly from animal experiments, points to the extractives of meat as responsible for this harmful effect. This, however, has not been sufficiently established in clinical cases and would, hence, require controlled experiments on a wide clinical material. Until the effect of meat in liver disease has been definitely established, it seems advisable in view of the animal experiments to provide jaundice patients with high amounts of protein obtained from other than meat sources. To provide a high protein diet, i.e. about 2 Gm./Kg. body weight, is difficult from only lacto-vegetarian sources because of lack of variety. Consequently the diet should be supplemented with accessory substances rich in protein as amino acids. The use of amino acids as protein source has become popular and they seem to offer real progress in protein nutrition. Our experience with amino acids confirms the satisfactory results of others. Amino acids can be given orally in amounts of 50 Gm. or more daily, thus providing anywhere from one-third to one-half of the required pro-

tein. They can also be given intravenously if oral administration is impossible as in post-operative or in coma cases. The patient can be kept in nitrogen balance by parenteral solutions only, if amino acids are given (all oral feedings being omitted).

An important consideration in jaundice is the caloric intake. The total caloric intake should be high, not only for possible wastage of food because of impaired intestinal absorption, but also because of the existing malnutrition or because of increased demand due to associated infection. Even for the bed ridden patient, around 40 calories/kilogram body weight are indicated which can be provided by 6-8 Gm. carbohydrate, by 2 Gm. protein and 1 Gm. fat per kilogram body weight. Sufficient amounts of fat and carbohydrate are necessary to prevent the proteins or amino acids from being used as energy carriers and to thus save them for utilization for regeneration of tissues or blood protein. The lipotropic action of amino acids in the 2 Gms. protein/kilogram suffices for taking care of the gram of fat/kilogram. This consideration of providing sufficient energy by carbohydrate should be kept in mind particularly when amino acids are given intravenously in order that the latter should not be burned up for energy.

The mineral requirements in jaundice are apparently not markedly altered. Occasionally, low blood chloride levels are found associated with changes in the acid-base balance producing a picture of an extrarenal azotemia. In cases of low blood chloride — which is an index of a low sodium — saline should be given intravenously or the salt intake should be raised. Several workers attach great importance to the administration of calcium in patients with liver damage. This is given best as a 10% solution of calcium gluconate intravenously, once or twice daily.

Regarding the amount of fluids, oral or intravenous, required by the jaundice patients, one finds himself between the Scylla and Charybdis. On the one hand the patient should not be given an unlimited amount so as to produce edema because of the increased avidity of the tissues for water in liver damage. On the other hand, enough fluids should be given to prevent dehydration and acidosis. The clinical condition

of the patient — fever, chills, sweats, edema, ascites (post-operative stage) — will determine the amount of fluids needed. The appearance of the tongue is probably still a good guide for determining fluid needs.

The role of vitamins in the management of jaundiced patients can be looked upon from two angles. First from the point of view that the vitamins protect the liver and help in its repair and, secondly, that the liver influences vitamin metabolism since the liver represents the most important store for many vitamins. Animal experiments indicate that in the unidentified parts of the vitamin B complex there are substances which are necessary for adequate functioning of the liver and successful treatment of liver cirrhosis has been reported by nutritious diet and supplements rich in vitamin B complex. Consequently in the treatment of jaundice, crude vitamin B-complex preparations are indicated from which these unidentified parts have not been removed. As long as these fractions are not known it is best to feed the patients yeast powder, 2-3 ounces daily, preferably in tomato juice. Only in cases where yeast is not tolerated B-complex preparations may be used. For parenteral administration crude, highly colored liver extract is preferable. The high potency concentrated liver preparations used in the treatment of pernicious anemia have possibly lost these B-complex factors.

Choline which some consider a fraction of the B-complex has strong lipotropic action in decreasing the fat content of normal and pathologic livers. Liver cirrheses have been produced by choline-free diets or disturbance of the nutrition related to chlorine deficiency and several reports have appeared of successful therapy of human liver cirrheses with it. One to two grams of choline hydrochloride daily have been recommended as the dose in liver disease. We used soybean lecithin — 30 Gms. daily — as a source of the choline. This lecithin preparation contains 4% choline. Given in form of a sandwich and sugared, it is quite acceptable.

Since the liver stores many fractions of the vitamin B complex, liver damage will interfere with such storage. In addition, high carbohydrate intake in liver disease increases the demand for vitamin B. Hence, signs of vitamin B deficiency, such as an alcoholic neuritis,

glossitis, intestinal disturbances with characteristic x-ray findings in the small intestine may appear, especially in chronic liver disease. Therefore, the food should be rich in the known fractions of the vitamin B complex also (thiamin hydrochloride, riboflavin, nicotinic acid, etc.). If yeast and accessory feedings rich in B are given, the demand is probably fulfilled. Otherwise, vitamin B preparations should be given additionally, especially if the patient does not eat well. In cases of mere intravenous nutrition, high amounts of injectable preparations of vitamin B factors should be given. In our cases solution Vitamin B Synthetics was found very helpful.

A specific relation between vitamin C and liver function has not been established. However, the general importance of vitamin C in surgical and inflammatory conditions points to vitamin C as a useful factor in liver disease. In the preparation of a diet for jaundice patients, therefore, a liberal amount of vitamin C should be included.

Of the fat soluble vitamins, vitamin A has been most studied, most intensively in its relation to liver pathology, because of available methods. The vitamin A level is low in liver disease due to (a) impaired intestinal absorption, (b) impaired regulation of the blood level by the liver and (c) due to increased avidity for vitamin A by the pathologic fat stores in some instances. Both animal and clinical experiments have demonstrated that the blood level of vitamin A can be raised to a functioning level only after the administration of huge doses of vitamin A orally. From our observations we would recommend 50-100,000 Units vitamin A as the daily dose in a jaundiced patient. Similar considerations as for vitamin A hold true for vitamin D.

The importance of vitamin K (which is necessary for prothrombin formation) in jaundice is now well established, although its mode of action is uncertain. Bile is required for oral absorption of vitamin K. The damaged liver, however does not sufficiently store it. In liver damage, moreover, the prothrombin formation is interfered with even in the presence of normal amounts of vitamin K. Consequently, in complete biliary obstruction, low prothrombin blood levels occur due to impaired vitamin K ab-

CHART NO. 1  
 Solid (Meat Free) Diet

Breakfast	Amount	Pro- teins	Fats	Carbo- hydrates
9% Fruit	200 Gm.	6	—	18
Cooked Cereal	200 Gm.	4	2	16
Sugar	10 Gm.	—	—	10
Toast	40 Gm.	4	—	21
Butter	10 Gm.	—	9	—
Egg	1 Gm.	6	6	—
Coffee				
Sugar	10 Gm.	—	—	10
Milk	200 Gm.	6	8	10
9:00 A.M.				
Milk	100 Gm.	3	4	5
Brewers Yeast	25 Gm.	12	—	10
Dinner				
Egg	1	6	6	—
3% Vegetable	100 Gm.	2	—	3
6% Vegetable	100 Gm.	2	—	6
18% Vegetable	100 Gm.	3	—	18
Bread	30 Gm.	3	—	16
Butter	6 Gm.	—	5	—
12% Fruit	150 Gm.	3	—	18
Sugar	20 Gm.	—	—	20
Milk	200 Gm.	6	8	10
Jello	100 Gm.	3	—	22
2:00 P.M.				
Brewers Yeast	25 Gm.	12	—	10
Milk	100 Gm.	3	4	5
3:00 P.M.				
Dietene	50 Gm.	16	—	28
Milk	150 Gm.	5	6	8
Crackers	2			
Lecithin	15 Gm.			
Supper				
3% Vegetable	100 Gm.	2	—	3
6% Vegetable	100 Gm.	2	—	6
18 Vegetable	100 Gm.	3	—	18
9% Fruit	200 Gm.	2	—	18
Sugar	20 Gm.	—	—	20
Bread	30 Gm.	3	—	16
Butter	6 Gm.	—	5	—
Milk	200 Gm.	6	8	10
8:00 P.M.				
Dietene	50 Gm.	16	—	28
Milk	150 Gm.	5	6	8
Crackers	2 Gm.			
Lecithin	15 Gm.			

TOTAL: Proteins 136—Fats 70—Carbohydrates 365  
 TOTAL CALORIES — 2714

100 Gm. or more of carbohydrates are given as a 10% (or higher) dextrose solution intravenously.

sorption. This is easily corrected by parenteral vitamin K administration.

In severe liver damage, low prothrombin levels may appear due to both absorption damage for vitamin K and inability to form prothrombin. This can only be corrected by continuous vitamin K administration, often several times daily. Since it is clinically difficult to evaluate the requirements, repeated prothrombin determinations should help in guiding the vitamin K therapy. This consideration is especially important in the pre-operative treatment since the prothrombin level may change in a few hours. Synthetic vitamin K preparations are water soluble and can thus be given parenterally or

orally without the additional administration of bile salts. The amount given depends on the prothrombin level. The average daily dose of 2-3 mg. of any good preparation usually suffices.

The above considerations presented have been utilized in the preparation of the following diet used at the Cook County Hospital. (Chart No. 1).

In addition to the non-dietary treatment of the jaundiced patient, the following points should be considered.

The rationale of bile acid therapy in the treatment of jaundice has been well outlined by Ivy and associates. Briefly, it can be mentioned that bile salts are useful whenever a choleresis appears desirable — as in chronic hepatitis or incomplete obstruction from any cause. For the production of choleresis the unconjugated, oxidized bile salts are best, because they produce an increased flow of thin bile. The bile salts (0.3-0.6 Gm. after meals) not only produce choleresis but also aid in the absorption of fats and vitamins from the intestine. In acute hepatitis and complete obstruction the use of bile salts is a moot question. In acute hepatitis they may have no influence on the damaged liver or may even stimulate an organ requiring rest. In complete obstruction, they may increase the back pressure. It is as yet not established whether the latter mentioned side effects may not surpass the beneficial effects of bile salts therapy.

Regulation of bowel movement is important in the jaundiced patient since many toxins acting on the liver come from the intestine. A saline laxative 15 Gm. or more daily of either a phosphate or sulphate is a good practice.

Nausea is often an unpleasant symptom in jaundice. Withholding of food often relieves this symptom. In some, small doses of morphine, 1/8-1/6 gr. and atropine, 1/120 gr., will aid.

Pruritus, often found in jaundice, offers a difficult therapeutic problem. Acetylsalicylic acid or ergot preparations (Bellergal) are helpful in some cases. Warm baths, cold enemas are of aid in others. In cases with localized pruritus, anesthetic ointments are useful. Clinical observation seems to point to the fact that jaundiced patients who are on a good dietary regimen are less troubled with pruritus.

The use of sedatives is frequently necessary. Since the liver conjugates barbiturates and morphine, the use of either must be judicious. Whenever possible bromides should be used.

Since liver damage may occur following the administration of sulfonamides, the use of these drugs in jaundice was debated. Recent evidence, however, which we can support with personal experiences points to the fact that sulfonamides may be used in jaundice if the need arises from some intercurrent infection.

#### SUMMARY

1. The medical management of jaundiced patients should be independent of the etiology of the jaundice (except for the hemolytic type).

2. A high caloric, high carbohydrate, high protein — meat free, low fat diet, supported by intravenous sugar administration is recommended.

3. Vitamin B complex is best given as yeast powder or crude liver extract. In addition choline (or lecithin) should be given.

4. High doses of vitamin A and D are recommended. The vitamin K administration should be regulated by the prothrombin level.

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### FIND THAT PENICILLIN PERMITS EARLY SKIN GRAFTING ON BURNS

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Investigators Say Results In 17 Patients Indicate Use Of Drug Solves Problem Of Loss Of Grafts From Infection

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Penicillin appears to be the solution to one of the chief problems involved in early skin grafting of burned areas, John Winslow Hirshfield, M.D.; Matthew A. Pilling, M.D.; Charles Wesley Buggs, Ph.D., and William E. Abbott, M.D., Detroit, report in *The Journal of the American Medical Association* for August 12. They report that from their experience with 17 patients to whom penicillin was administered at the time of skin grafting they believe that the use of the drug permits early skin grafting and also appears to prevent the loss of skin from infection that ordinarily occurs in about one third of the cases in which split thickness grafts are placed on contaminated recipient sites. Nineteen split thickness grafts were performed on the 17 pa-

tients. With one exception, from 90 to 100 per cent of the transplanted skin took in every instance, the exception occurring in an uncooperative alcoholic addict on whom 80 per cent of the grafts took.

"Before penicillin was available," they say, "we performed over a hundred grafts in patients with third degree burns. Although many excellent takes were obtained, in about one third of the cases 25 per cent or more of the graft was lost because of the occurrence of infection. Therefore the consistency with which excellent takes were obtained in this series of 19 grafts has been very impressive to us. . . ."

The authors point out that "Few patients are more miserable than those with large unhealed third degree burns. Early skin grafting of the burned areas is the only means of quickly returning these patients to a useful life. The longer this procedure is delayed, the greater the immediate threat of death and the ultimate development of scars and deformity. The aim of all treatment, therefore, is reepithelization (regrowth of the covering of the skin and mucous membranes) of the burned areas as promptly as possible. In general, it requires from one to three months to achieve this aim. . . ."

They say that the necessity of grafting the same area more than once is the chief factor tending to prolong the convalescence of such patients, and that infection is the chief cause of failure of skin grafts to take.

All of the 17 patients received penicillin by injection into the muscles (intramuscular), the dose and the duration of treatment varying somewhat from patient to patient. In general, penicillin treatment was started about twelve hours before operation and was continued until the time of the first dressing.

"The administration of penicillin," they say, "did not seem to alter the bacterial flora a great deal; cultures taken at the time of the first dressing from the margins of the grafts and from the sutures usually yielded the same organisms that were present on the granulating surface before grafting. In spite of their persistence, they did not seem to affect the growth of the graft. Penicillin, therefore, must hold them in check until the new skin has a chance to become established in its new bed."

# Industrial Health

Committee On Industrial Health — Frederick W. Slobe, Chm., 2024 South Western Ave., Chicago, Frank P. Hammond, H. A. Vonachen, R. I. Barickman, C. O. Sappington, Milton H. Kronenberg.

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## RECENT DATA ON HEALTH HAZARDS IN WAR INDUSTRIES

LIEUTENANT-COLONEL W. J. McCONNELL,  
M. C., U. S. A.

In speaking of industrial health and hygiene problems in war industries, much of what can be said applies to industry in general — nearly all industrial plants have been affected by some fundamental changes in machinery, processes, and materials. Under the pressure of the War, an ever increasing use of new chemicals and the reappearance of old ones, many more toxic than the ones they have replaced, has created a problem of serious magnitude. The War likewise is increasing the number of inexperienced workers and those of advanced age who have long been unemployed. Old standards of physical fitness for employment have had to give way to a more realistic approach in the matter of putting the physically substandard applicant to work.

Industrial absenteeism, under war conditions, has become alarmingly high and at times has seriously interrupted the production of greatly needed materiel. The causes are many, and these vary from plant to plant and from industry to industry, and any attempt to apply a single formula to the problem as a whole is futile. Sickness, either physical or emotional, accidents, and excessive fatigue no doubt account for a large percentage of cases of absenteeism, but overcrowding in the plant, frustration caused by green authority, and the migration of workers, particularly from the country to the city, and the associated changes in working, home, inade-

quate transportation, and community conditions contribute in no small measure to loss of production hours.

Accumulated evidence, however, points to sickness as the most frequent single cause for absence from work. Although the truly occupational diseases account for only a small percentage of the total cases of illnesses, they are tremendously important in particular types of work and their incidence in many industries has never been so great as at the present time. However, their early recognition, and the improvement in methods of controlling harmful exposures have greatly diminished their seriousness.

In a number of operations, the industrial dermatoses far exceed the definite occupational intoxications. Skin contact with materials such as tetryl, TNT, DNT, fulminate of mercury and others, may cause a sensitization dermatitis, while substances like ammonium nitrate, antimony sulfide, and an ever increasing variety of solvents act as skin irritants.

More serious than the dermatoses, however, are the occupational intoxications from exposures to toxic dusts, fumes, gases or vapors, which, unless adequately controlled, may reach unsafe atmospheric concentrations.

Among the more common offenders in Ordnance establishments which must be guarded against are: trinitrotoluene and dinitrotoluene, either alone or in combination with other explosive materials in the form of a dust, fume or vapor, depending upon the particular operation; the nitrogen oxide gases; and new explosive compounds, the composition of which cannot be dis-

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closed at this time. Also encountered in certain of these plants are operations giving rise to some of the more familiar atmospheric contaminants. To mention only a few, carbon monoxide may be found during ballistic testing; lead fumes or dust also may be encountered in testing and in other operations, as lead bullet casting, lead melting, burning, pouring and soldering; mercury vapors in mercury crack testing; metal fumes of all kinds in metalizing operations; and vapors of a variety of volatile solvents in degreasing, decarbonizing, and paint spraying operations. While all these present special problems, accumulated experience from various sources over a period of years has indicated the approach to the solution of controlling these hazards in most instances. Experimental work being carried on in some of our munitions plants is providing the answer in other instances.

Appraisals of occupational health hazards in these plants, as in all Army-owned plants, are made by experienced personnel of the Army Industrial Hygiene Laboratory, and of the Division of Industrial Hygiene of the National Institute of Health, and management is informed regarding necessary measures for correcting existing hazards, and for improving health services. These surveys are provided as part of the Army's industrial medical program under the general supervision of the Chief of the Occupational Hygiene Branch, which has been established in the Division of Preventive Medicine of the Surgeon General's Office.

Private commercial establishments handling explosives and assigned to the Safety Security Branch of the Ordnance Department for continuing protection responsibility are encouraged to request similar surveys through the Regional Safety and Security Branch Offices. By arrangement with the Public Health Service, the various official state and local bureaus of industrial hygiene have been asked to participate in this program, wherever available.

The Surgeon General also is charged with the responsibility for making all necessary provisions for the emergency treatment of military personnel and civilian employees at Army-operated plants; and for the establishment of proper standards of industrial medical services in Army-owned, contractor-operated plants, and for necessary control and inspection to insure compliance

with such standards. Similar technical services falling in the field of Safety are provided in Ordnance establishments assigned to the Safety and Security Branch of the Office of the Chief of Ordnance for continuing inspection responsibility, by safety auditors who advise the operating management of protective measures against unsafe practices. In all other Army-owned plants, the responsibility for safety rests with the Service Commands under the general supervision of the Provost Marshal General's Office.

The medical department of each plant is adequately staffed and equipped to carry out an industrial health and hygiene program best suited to the needs of each facility. Recognizing that prevention is a cardinal principle for lowering the incidence of disability whether through accident or disease, it is an essential requirement that preplacement physical examinations be made on all applicants for employment. This is necessary for protecting the worker from engaging in work for which he is physically or mentally ill-adapted and which might result in serious impairment of his health. If, on the other hand, his defects are detected and evaluated, he can be placed in a job that involves no further risk and may be expected to continue employment as a useful and productive workman.

Periodic physical examinations, when they can be done, are of course well worth while, but under present circumstances they usually must be limited to certain groups of workers who are exposed to toxic substances.

The diagnosis and treatment of minor ailments of employees who are ambulatory and working, as well as special diagnostic procedures of those whose work involves exposure to toxic substances and chemical hazards, are essential functions of the medical department. A good industrial health and hygiene program provides also for medical supervision of plant hygiene and sanitation; for immunization of workers against those communicable diseases which are preventable; for supervision of the plant cafeteria; for a planned program of employer health and safety education; and for the maintenance of accurate individual sick records in such a form that they can be easily tabulated and studied in an effort to detect and control excessive illness.

Special procedures applicable to workers engaged in areas where there is an exposure to certain toxic material must be rigidly enforced for their protection. An entire change of clean work clothes, including undergarments, should be furnished these particular workers. Showers at the end of the shift should be mandatory. Special soaps have been developed which effectively remove such substances as TNT and tetryl, and are recommended for use. Detector solutions should be applied to the skin surfaces on occasions to determine if the substances are being adequately removed. Suitable protective clothing, such as gloves, sleeves, aprons and respirators should be furnished to workers on jobs where such protective measures are indicated. Protective ointments may be indicated for the face, neck, and hands of workers handling certain substances.

Wherever management has actively supported a comprehensive health program and enforced rules regarding employee self-protection, the occupational dermatoses and intoxications among workers are comparatively few and lost time from these and other illnesses is minimized.

## INDUSTRIAL HYGIENE NEWS LETTER

The Industrial Hygiene Division of the U. S. Public Health Service, Bethesda, Maryland, in their monthly news letters, continue to publish informatory data relative to industrial hygiene and toxicology. The following are some recent excerpts.

### 1942 SICKNESS RATES AMONG MALES HIGHEST IN TEN YEARS<sup>1</sup>

In a forthcoming paper, "Sickness Absenteeism Among Male and Female Industrial Workers, 1933-42," based on 8-day cases or longer, Dr. W. M. Gafafer reports, among other things, that the male rate of 106.1 absences per 1,000 for 1942 for all causes is the highest recorded annual rate since 1933 and is 16 percent greater than the 10-year average of 91.1. The female rate of 168.4 for 1942 for all causes is also the highest recorded annual rate since 1933, being almost 60 percent greater than the corresponding male rate and 14 percent in excess of the 10-year average of 148.1. For the males each broad sickness group for 1942 shows a rate that has never been equalled or exceeded since 1933 while for the females only the non-respira-

tory non-digestive group is so characterized. There are certain specific causes for males which show for 1942 the highest rates for the 10-year period and at the same time yield relatively high excesses when compared with the corresponding averages for 1933-42. These causes with their excesses are pneumonia, 83 percent; bronchitis, 44 percent; and diarrhea and enteritis, 38 percent. The corresponding causes for the females are diseases of the organs of locomotion except diseases of the joints, 85 percent; pneumonia, 81 percent; and neurasthenia, 41 percent.

### NEW PROTECTIVE DEVICE FOR WELDERS<sup>1</sup>

The Southern California Division of General Motors Corporation has developed a new respiratory protective device for protection against inhalation of smoke while welding. This device, which has been named the "Breatherfier," consists of a multiperforated air dispersal block worn on the chest of the worker just under the lower edge of the welding hood. Air is supplied by the standard respirator hose.

Many of the employees who have used the Breatherfier find it more comfortable than the air supplied hood or face type respirator. The Breatherfier keeps the face clean, prevents goggles from fogging badly, and welding smoke or odor from reaching the face. Consideration should be given to the application of this device to ship construction, especially to welders working in double bottoms or other closed places.

### ACUTE FATAL CASE OF CADMIUM POISONING<sup>2</sup>

In an Indiana plant, one worker died within 4 days after a prolonged exposure to high concentrations of cadmium fumes. This death could have been prevented if someone responsible for setting up manufacturing processes had remembered that cadmium was very toxic and that if the metal was heated the workers would be exposed to high concentrations of a poisonous material.

The deceased worker undertook a job of "flanging" two-inch cadmium plated stainless steel pipe. To produce a flange, the pipe was heated with a blow torch until the pipe became a cherry red color. Soon after beginning the operation the employees complained about irritation of the nose and throat as well as the thick blue smoke present in the workers' environment. Within 4 hours, two employees were violently ill and were taken home. Vomiting, chest pains and shortness of breath were the chief symptoms at this time. The chest symptoms increased in one worker and within 4 days this worker died of a severe chest involvement.

This case again emphasizes that cadmium is a very toxic element and that cadmium plated steels should not be welded, heated, brazed or burned unless the job is well controlled. Such operations must be done in conjunction with properly designed and properly maintained local exhaust systems, for cadmium is more toxic than lead. — Dr. Louis W. Spolyar, Director, Indiana Bureau of Industrial Hygiene.

1. August, 1943.

2. November, 1943.

DANGERS OF X-RAY RADIATION IN MASS X-RAYING<sup>2</sup>

The greatly increased use of the chest x-ray in mass surveys of industrial workers and other groups requires continuous vigilance to safeguard from over exposure to roentgen rays both the operators of x-ray units and the persons being examined.

Lead screen protection for the operators, proper spacing and careful checking of equipment, and frequent blood examination of operators are necessary precautions. The dangers of such exposure have been thoroughly studied by the Tuberculosis Control Section, States Relations Division, U. S. Public Health Service. To aid the technicians of this section, a blueprint chart has been prepared showing the proper spacing of the mobile photofluorographic equipment now being used in the Public Health Service tuberculosis case finding program. Copies of this chart and detailed information can be obtained upon request to Senior Surgeon Herman E. Hilleboe, Tuberculosis Control Section.

A timely warning on the "Danger from Fluoroscopy" appearing in an editorial of "Minnesota Medicine," June 1943, written by K. Wilhelm Stenstrom, Ph. D., Professor of Biophysics, University of Minnesota, has been reprinted in the November 1943 "Tuberculosis Abstracts," published by the National Tuberculosis Association, 1790 Broadway, New York City. This editorial states that "roentgen rays from fluoroscopic units have caused innumerable sequelae to both patients and physicians and serious damages often still result in spite of the knowledge that now is available." The rules for safety in avoiding both electric shock and roentgen ray exposure are specified.

CARBON TETRACHLORIDE POISONING IN PARACHUTE FACTORY<sup>3</sup>

The cause of illness among 135 employees in a Kentucky plant manufacturing parachutes was traced to carbon tetrachloride used for cleaning soiled spots on the chutes, on investigation by the Kentucky State Division of Industrial Hygiene. The outbreak of illness occurred during a period of 10 days, and was manifested by abdominal cramping, nausea and vomiting. Some individuals complained of "bloating and difficulty in breathing." Many employees were acutely ill and unable to continue work. The illness lasted from 2 to 5 days in the average case although a number of the workers continued to feel bad after resuming work.

The possibilities of food poisoning were ruled out by questioning of ill employees about food consumed in the 48 hours preceding onset of illness. The absence of fever and diarrhea indicated that the disease was not an intestinal disorder of bacillary origin.

On further study, the nursing records revealed that a great many employees complained of frequent or even constant headaches, and complaints of gastric distress had been especially numerous for several weeks.

The fact that the incidence of the disease was restricted to workers on the first shift, and to those whose work placed them in the same environment, pointed to some special factor such as a toxic chemical.

A check of the records revealed that out of 137 sick employees, 135 had been engaged in sewing and cleaning the nylon used in manufacture.

It was found that more cleaning of the chutes had been done in recent weeks and that at times "pure carbon tetrachloride" had been used in place of the usual solvent. The solvent was used freely from open containers, and an estimated 4 gallons of this solvent were used daily.

With the beginning of the cold weather season 5 or 6 weeks ago, ventilation was provided only by opening windows along the skylight, side windows being closed. Since the fumes of carbon tetrachloride gas have a density 5.3 times that of air, they could only be removed by vents at floor level. It was significant that the first noted symptoms began only a few weeks ago coincidental with the beginning of heating, and consequent reduction of ventilation in an effort to conserve fuel.

The recommendation made for substitution of some other solvent was quickly adopted. The use of carbon tetrachloride was immediately ordered discontinued, and cleaning of parachutes is now being done with mild soap and water.

FUMES FELL 38 WORKERS<sup>3</sup>

Such were the headlines in all the Boston, Massachusetts, papers on December, 11, 1943, when, according to the newspaper accounts, 38 women employed at a Cambridge plant had fallen unconscious from a mysterious gas. For the moment it appeared that the Coconut Grove tragedy had been repeated on a smaller scale.

Investigation by members of the staff of the Massachusetts Division of Occupational Hygiene revealed that the "mysterious" gas was carbon monoxide and that, of the 38 workers affected, only 8 required hospitalization for a single night. There were no fatalities nor apparent sequelae. Atmospheric contamination with carbon monoxide occurred from the use of 2 brazing furnaces and a combustion chamber in which illuminating gas was reduced to a mixture of carbon dioxide 8%, carbon monoxide 12%, and nitrogen 80%. A leak was found around the sight glass of the combustion chamber, but the primary cause of the poisonings was the breakdown of a ventilating fan.

Although the plant was immediately shut down, the furnaces were run experimentally at night, and within 1 hour concentrations in excess of 100 p.p.m. were found with a temporary 16-inch fan in operation. Experimentally, 20 minutes after the fan was stopped, concentrations in the workroom reached 280 p.p.m. Steps instituted to prevent a recurrence included more adequate exhaust ventilation, a carbon monoxide alarm and segregation of the furnaces from the main workroom.

3. January, 1944.

The moral of this story would seem to be that a situation involving an extremely "close call" for a sizeable group of workers might at any time be duplicated in many plants in Massachusetts and other States, and that operations such as the one in question call for more attention than they have been getting. — Manfred Bowditch, Director, Massachusetts Division of Occupational Hygiene.

#### DERMATITIS AMONG WELDERS<sup>4</sup>

Recently a group of women welders at a California plant, engaged in the fabrication of metal war materials, suffered an acne-like dermatitis on the neck and lower parts of the face. Inspection of the working environment revealed no unusual conditions. It was determined, however, that each of these workers at some time had worked at a job which consisted of welding an ungalvanized lug to a disc. Inspection of the discs disclosed that they were coated with a very thin film of oil which was applied at another plant. A conference with the manufacturer of the discs revealed that the oil was used primarily to aid in the stamping operation as well as to protect the iron from rust. The oil contained 30 percent chlorine and 20 percent sulphur and could be classified as a chlorinated hydrocarbon evolved by the heat of the welding.

These facts indicated that the dermatitis was a chloracne resulting from exposure of the skin to a chlorinated hydrocarbon vapor. Scrupulous personal hygiene on the part of the workers and the removal of the oil from the metal before welding were recommended as control measures. The California Bureau of Industrial Health find these are the first reported chloracne cases from such a cause.

#### METHYL ETHYL KETONE CAUSES DERMATITIS<sup>4</sup>

A request for an investigation of an outbreak of dermatitis was received by the Dermatoses Section, Industrial Hygiene Division, U. S. Public Health Service, from a Louisiana plant using methyl ethyl ketone. Previous investigations made by this Section show that a high concentration of methyl ethyl ketone vapors cause dermatitis and irritations of the mucous membrane, and that this condition occurs among workers coating fabrics with vinylite where methyl ethyl ketone is used as a solvent.

#### X-RAYS EMITTED FROM CERTAIN ELECTRONIC TUBES DURING THEIR MANUFACTURING AND TESTING<sup>4</sup>

Recent studies in a Pacific Coast plant engaged in the manufacture of certain electronic tubes revealed the production of x-rays as indicated by approved methods of detection. At least one previous investigation of this question elsewhere had failed to show any such exposure to the workers engaged. It is felt that increased operating voltages which are now used cause a real hazard both in manufacture and operation of these tubes.

#### CARBON TETRACHLORIDE POISONING FROM CORE PAINT IN FOUNDRY<sup>4</sup>

Recently the Industrial Health Hygiene Service, Tennessee Department of Public Health, was requested to make an investigation in the core department of a foundry where cores were being "painted" with a material called "Superflake Molduko." In this foundry, the liquid "Molduko" was put in open gallon cans and graphite added. The operation of painting consisted of partially dipping the core and applying the mixture with a brush. Another workman placed them in a furnace for drying. Certain of the employees working on or near this operation became ill, resulting in considerable lost time.

Investigation of the composition of "Superflake Molduko" has shown that it consists of carbon tetrachloride and petroleum distillate. Carbon tetrachloride is probably present in excess of 25 percent.

The painting of cores to obtain a smooth surface is a common practice in foundries, although the nature of the materials used for this purpose will vary. On the basis of this experience it would seem advisable to consider the nature of the material used in the operation when making industrial hygiene investigations.

#### CARBON MONOXIDE POISONING<sup>5</sup>

Recently a physician in Montana designated carbon monoxide as an important contributing factor to the illnesses of two garage employees, one of whom recovered and the other died. The men had complained of headaches and occasionally of nausea at the end of a working day, but there was no known history of acute carbon monoxide poisoning.

The management of the garage requested a study by the Montana Division of Industrial Hygiene. The study revealed that without any automobile motors running, the carbon monoxide concentration was maintained in excess of 250 p.p.m. throughout the shop. Seven old gas-fired unit heaters located about the garage were determined to be the sources of the carbon monoxide. The orifices of these heaters had been reamed out to allow a greater supply of natural gas, but the air supply had not been increased accordingly. New heaters have been installed and tests now show that the carbon monoxide concentration remains below 75 p.p.m. even with all doors and windows in the shop closed.

#### A FATAL CASE OF ETHYLENE CHLOROHYDRIN POISONING

A workman in a Los Angeles manufacturing plant, while cleaning trays upon which rubber strips were stored, used a petroleum hydrocarbon solvent of the kerosene range. The supply of the solvent being temporarily exhausted, the man then used anhydrous ethylene chlorohydrin for the same purpose. He was careful to wear impervious rubber gauntlets. The room was large and well ventilated, but he was exposed to the vapors of the solvent.

When after 2 hours the workman became very ill, he was taken to the dispensary and 5 hours later removed to the hospital where he died, 11 hours after he first started to use the solvent. The man was 61 years of age and in excellent physical health up to the time of this illness. It was found upon investigation that he had been exposed to an average concentration of vapor of about one milligram per liter of air (305 p.p.m.)

Six white mice were exposed to a similar atmosphere and all were ill in an hour, with a downhill course after 2 hours, exposure was then ended and 4 hours later one of the mice died while the others were extremely ill. In 24 hours, the five mice were again normal.

Autopsy of the deceased, evaluation of the exposure and duplication of the exposure in laboratory animals with similar pathological findings, led to the conclusion that death was due to anhydrous ethylene chlorohydrin, proving that the solvent is dangerous even in relatively low vapor concentration.

#### THE AMERICAN ASSOCIATION OF INDUSTRIAL NURSES

The American Association of Industrial Nurses will, on October 1, launch its drive for new members. This national association was organized in 1942 in recognition of the growth and expansion in the field of industrial nursing.

Though the war has brought an extraordinary growth in this area, some of which will be cut as war industries close, industrial nursing is now established as an important and permanent branch of nursing. It demands an organization whose policies are shaped by those who have blazed the trails in this area, and is enriched by the experiences of the new recruits.

Industrial nursing is an integral part of the growing movement to provide safety and health to our great worker population. This movement, instigated privately by industrial management, and officially by city, state and federal governments, is a substantial and growing phase in our country's efforts to prevent accident and disease and to promote health.

The AAIN represents nurses in every field of industrial and mercantile establishments. Its governing board is representative of the country as a whole. Its membership requirements are on a par with those of other standard making nursing bodies. It has already made material progress through the appointment of an executive secretary, in appointing counsellors in strategic areas for advising nurses, and in laying the ground-work for university and college courses in industrial nursing. Its expanding action program is centered on a sharing of common problems by all nurses in industry, and in aiding these nurses to broaden their usefulness to society.

The AAIN actively encourages membership in the nursing profession's official bodies, the district, state and national nurses associations. It also encourages the creation of sections on industrial nursing within these bodies, and it works in close harmony with these and all other agencies concerned with industrial and community health.

In this drive the American Association of Industrial Nurses appeals to industrial management, physicians and safety engineers, as well as to nurses, to bring word of this association to their nurses. A post card inquiry will at once furnish complete information to a prospective member. Address Mrs. Gladys Dundore, R.N., Executive Secretary, 54 W. 10th Street, New York City 11, N. Y.



#### A PNEUMATIC LEG SPLINT

A pneumatic leg splint, quickly and easily applied, which is recommended only as an emergency and transportation unit, is described in *The Journal of the American Medical Association* for August 5 by G. J. Curry, M.D., Flint, Mich.

"This piece of fracture equipment," he says, "is designed to employ the use of air properly encased between two layers of supporting material. It is an inflation unit for emergency care of fractured lower extremities. The two layers are cut to selected measurements and sealed at the edges. The air intake is through a valve located at either the upper or the lower portion. . . .

Hooks are attached to the anterior. . . . edges and evenly spaced. The unit is folded around the affected part and laced with leather lacing material in the same fashion as a boot. Inflation follows, either by mouth blowing or by the use of a pump. . . ."

He says it is consistently comfortable, pressure is low, constant and evenly distributed; can be used as a pressure dressing for complicating lower extremity burns; it floats, thus being useful as a splint for a sailor abandoning ship, and "it may be useful as an added piece of fracture equipment, aboard ambulances, emergency hospital services and in the surgical divisions of the armed forces."

# News of the State

## PERSONALS · COMING EVENTS · MARRIAGES · DEATHS

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### COOK COUNTY

Vladimer G. Urse, superintendent of Cook County Psychopathic Hospital since 1941 has been granted a military leave of absence and has reported to Carlisle barracks with the rank of major. He expects to be sent later to the Lawson General Hospital at Atlanta, Georgia. Dr. John J. Madden, assistant psychiatrist for the last eight years, has been named as acting superintendent by the county board of supervisors.

The Chicago Tribune of August 27th reported that Dr. Andrew C. Ivy, head of the physiology department of Northwestern university medical school has discovered a method to reduce some ill effects of mapharsen, Vitamins C and P in combination with mapharsen are administered.

Graduation exercises for the class of 1944, Northwestern University Medical School, will be held in Thorne Hall, Thursday, September 14th at 4:00 P. M. The speaker will be Major General George Lull, Deputy Surgeon General of the U. S. Army. Due to the limited seating capacity, admission to commencement will be by invitation only. Immediately following the commencement exercises, the Medical Division of the Alumni Association will hold a reception in Thorne Hall for the members of the graduating class, faculty members, and their families. All Medical alumni are cordially invited. Members of the Women's Faculty Club will act as hostesses.

Col. Warren E. Pugh, a former member of the staff of the Illinois Masonic Hospital, Chicago, is home on leave. He was in command of the Atlantic base section in Morocco and participated in the Allied landing in France. He has been awarded the Legion of Merit for organizing the defense and discipline control of the troops in West Africa. He is also the holder of the Ouisam Alouite, the highest decoration which can be conferred by the Sultan of Morocco and presented for his cooperation with the French and Moslems while in command of the Atlantic base section.

Capt. Seymour L. Osher, formerly of Maywood, Ill., was recently awarded the Bronze Star for heroic action in Italy. The award was for remaining at his post and performing surgery despite the fall of flak throughout the hospital. Dr. Osher graduated from the University of Illinois College of Medicine, Chicago, in 1940 and entered the service Feb. 20, 1942.

A string of hospitals is being set up in Hollandia, New Guinea with many Chicago doctors in charge. Among these in that area are Capt. Clarence Kristiansen, Lt. Roland Landenson, Major James P. Grier, Major John Guerin, and Lt. Ray Gaines of Broughton, Illinois.

The Silver Star Medal was recently awarded to Comdr. Emmett L. Calhoun who graduated from Northwestern University Medical School in 1925. The citation accompanying the award read, "Comdr. Emmett L. Calhoun (MC) U.S.N.R., Hoquaim, Wash. Serving in the U.S.S. Northhampton in the Solomons 26-27, October 1942, he insisted on manning his station although weakened by a major emergency operation. He was seriously injured during an attack but next day, when 114 wounded survivors were brought aboard, he worked tirelessly for four days to relieve their suffering."

The Legion of Merit was awarded by the War Department to Col. Edward J. Kendricks, a regular army officer since Oct. 1, 1930, "for exceptionally meritorious conduct in the performance of outstanding service from September 1942 to October 1943." Dr. Kendricks graduated from Northwestern University Medical School, Chicago, in 1922.

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### CRAWFORD COUNTY

The regular meeting of the Crawford County Medical School was held at the Robinson Hospital August 10th. County Superintendent of Schools Roe M. Wright spoke on "Suggested Plans for Administrating the School Health Examination for the County."

**DEWITT COUNTY**

H. L. Meltzer of Clinton is home on his first furlough since before the start of the war. He was the first DeWitt County physician to enter the service and has been stationed at Pearl Harbor since shortly before the Japanese attack.

From the latest word received it appears that all DeWitt County doctors in the service are now stationed outside of the United States.

The physicians of Clinton have just concluded their annual immunization campaign which was carried on through the months of June and July.

Charles Bogardus of Clinton, a Hay Fever victim, has gone to Michigan to escape the discomfort of the pollen.

**FULTON COUNTY**

C. H. Hamilton, Vermont's only physician at the present time, is now in his fiftieth year of practice. In these fifty years, he has been away from work 15 days because of illness.

**HARDIN COUNTY**

Lt. Colonel Martha Jane Clement, a native of Illinois, has been appointed Chief of Army Nurses for the Sixth Service Command, replacing Lt. Colonel Pearl Fisher, retired. Colonel Clement was born in Elizabethtown and received her training at the Southern Illinois Hospital at Anna. She entered the Army Nurse Corps in 1918 and has served at Walter Reed Hospital, the Philippines and Langley Field, Virginia. In January 1942, she was sent to Australia as director of Army nurses in the Southwest Pacific with headquarters in Brisbane. She returned to the United States last May after 27 months of service in the Southwest Pacific.

**LIVINGSTON COUNTY**

Doctors of Fairbury entertained members of the Livingston County Medical Society and several doctors from McLean and adjoining counties at an afternoon and evening meeting July 20th. The doctors visited the local hospital during the afternoon, with the new maternity ward receiving their special attention. Dr. and Mrs. H. C. Sauer entertained the doctors at dinner in their backyard and then scientific papers were presented by Harry Oberhelman and Harold Voris of Chicago.

**MORGAN COUNTY**

George L. Drennan of Jacksonville was promoted to the rank of Commander as of October 1, 1942. He is Senior Medical Officer on an attack transport.

**PEORIA COUNTY**

Approximately 58 children attended the crippled children's clinic at St. Francis Hospital,

Peoria on August 8th. The clinic is sponsored by the division of services for crippled children in Illinois cooperating with the Peoria Visiting Nurse Association, Peoria Rotary Club and the Peoria County Medical Society. Hugh Cooper was in charge of examination and diagnosis.

**WILLIAMSON COUNTY**

The Soldier's Medal was recently awarded to Capt. Martin M. May, formerly of Marion, Ill., who is now serving in the Army Medical Corps in Italy. The citation accompanying the award read "for heroism not involved in conflict with the enemy. On June 7, 1944 a fire of unknown origin started in the engineer combat battalion supply dump. The fire spread quickly through the inflammable materials in storage. Most of the men were trying to extinguish the conflagration when a tremendous explosion threw them to the ground, sending sheets of flame and smoke and bits of torn metal throughout the area. Twenty-four men and three officers were killed by the blast. As the smoke cleared away, Captain May saw Technician Fourth Grade Weibrich, severely burned, internally injured and suffering from shock, attempting to crawl out of the flaming area. With complete disregard for his own life Captain May left his place of safety and with the help of an enlisted man ran into the flaming inferno and carried Weibrich out. Although there were still small explosions, and knowing that the fire might engulf the wounded man, Captain May courageously and heroically risked his own life in the face of known danger to rescue Technician Weibrich. Captain May then proceeded to organize his medical aid men and some volunteers to treat the casualties. He personally administered morphine and blood plasma to the most severely wounded. Unquestionably Captain May's prompt calculated actions saved the sight and the lives of several men. His heroic conduct is a credit to himself and to the Medical Corps." Dr. May graduated from St. Louis University School of Medicine in 1938 and entered the service Oct. 7, 1942.

**WINNEBAGO COUNTY**

The 50 year pin and plaque of the Illinois State Medical Society were awarded to F. A. Turner of Rockford in July. Dr. Turner in pointing out the changes 50 years have brought in the medical profession, reported that typhoid fever, which was taking a toll of 117.3 of every 100,000 a half century ago, now is rare, only "one case being reported to the city health department in 11 years." Dr. William J. Bryan, President of the Winnebago County Medical Society, presided at the special meeting.

## MARRIAGES

FORREST R. MARTIN, Paris, Ill., to Mrs. Cauline McKinney Staley of Decatur, June 20.

## DEATHS

BERTRAM M. BARRINGER, Emden; Illinois Medical College, Chicago, 1904. Had practiced medicine in Emden 37 years. Died July 26, 1944 at the age of 77 years.

FREDERIC ATWOOD BESLEY, Waukegan; Northwestern University Medical School, 1894. In 1900 he was named professor of surgery at the Post-graduate Medical School, Chicago, a position he held until 1908; for a year in 1901 he held a similar appointment at the Woman's Medical College of Northwestern University. In 1899 he joined the staff of Northwestern as clinical instructor in surgery and in 1915, he was made professor of surgery. During the first World War he served as chief surgeon of the Northwestern University Base Hospital Unit number 12. He was commissioned as major and retired with the rank of colonel. He was a founder member of the American College of Surgeons in 1913, serving as treasurer from 1926 to 1937, president and member of the board of regents from 1937 to 1938, when he became secretary, a position he held at the time of his death. In 1920 he established the Besley-Waukegan clinic in Waukegan. He died August 16, aged 76, following a prostatectomy.

MERRICK ROBLEE BRECK, Chicago; Rush Medical College, 1924; on attending staff of Ravenswood Hospital; formerly on the staff of the Atchison, Topeka and Sante Fe Railroad Hospital, La Junta, Colorado. Was commissioned a first lieutenant in the medical reserve corps of the U. S. Army on Dec. 3, 1931; promoted to captain, major and lieutenant colonel; drowned in New Guinea June 9, aged 44 years.

CHARLES O. BURGESS, Monmouth; University of Illinois College of Medicine, 1903. Had practiced medicine in Monmouth for 37 years. He was a member of Monmouth Medical Club, Warren County and Illinois State Medical Societies, Fellow of the A.M.A. and for many years a member of the House of Delegates of the Illinois State Medical Society. Died of a malignancy following a long illness, August 24, 1944 at the age of 68.

WILLIAM A. FISHER, Chicago; University of Michigan Medical School, 1885. Formerly professor of ophthalmology at Chicago Eye, Ear, Nose and Throat College. He founded the hospital in 1897 and was head of it until about 10 years ago. He had practiced in the loop in Chicago for more than 50 years. Died July, 1944 at the age of 89.

ARTHUR J. FLETCHER, Danville; Northwestern University Medical School, 1909. He began practicing medicine in Homer before he entered service in World War 1 as a lieutenant. He advanced to the rank of

major and when discharged moved his office to Danville where he had practiced for many years. At the time of his death he was president of the Vermilion County Medical Society. Died of a heart attack July 31, 1944 at the age of 65.

WILLIAM H. GERMAN, Chicago; Michigan College of Medicine, 1883. Had practiced medicine on Chicago's south side for 60 years. Was formerly a surgeon for the Chicago, Rock Island & Pacific Railroad. Died in July, 1944 at the age of 89.

OTTO WILLIAM HINN, Cicero; Bennett College of Eclectic Medicine and Surgery, 1912. Before coming to Cicero he had practiced in Chicago but had moved to Cicero many years ago. Died suddenly of a heart attack July 20, 1944 at the age of 59.

FRANK JAMES KOLUMBAR, Jr., Berwyn; Chicago Medical School, 1942. Was commissioned a first lieutenant in the medical corps, U.S.A., on Oct. 12, 1942; killed in action in the Marshall Islands February 21, aged 29.

CHARLES LIEBER, Waukegan; University of Nebraska College of Medicine, 1908. Served for 15 years as Lake county physician and superintendent of the Lake County General Hospital. He was a senior lieutenant in the navy medical corps in World War 1. Upon his discharge in 1919, he began practice in Waukegan where he was on the staff of St. Therese Hospital. Died at his ranch home near Gurley, Nebraska, August 16, 1944 aged 57.

FRANKLIN JACOB LINS, Durand; Rush Medical College, 1897. Had practiced medicine and surgery in Durand for 39 years. Died August 1, 1944 at the age of 80.

OLIVER LEE OGLE, retired, Belleville; St. Louis Medical College, Missouri, 1897. Pioneer resident of St. Clair County. Died July 31, 1944 at the age of 76.

JAMES WIGHT PACKARD, Rockton; College of Physicians and Surgeons, Chicago, School of Medicine of the University of Illinois, 1910. Formerly on the staff of Wesley Memorial Hospital, Chicago. Died May 24, 1944, aged 80.

JOSEPH LESLIE SHERRICK, Monmouth; Johns Hopkins University School of Medicine, 1914. Practicing physician and surgeon in Monmouth for nearly 30 years. His death was attributed to influenza, caused by overwork, followed by complications effecting the lungs and heart. Died July 28, 1944, aged 56 years.

ANDREW W. SPRINGS, Dewmaine; National Medical University, Chicago, 1905. Had practiced medicine for 35 years, most of that time as head of the Madison Coal Company's Hospital at Dewmaine. He was awarded a gold medal for life saving at the time of a mine explosion at Royalton in 1914. He was the only doctor to go underground to administer first aid. Died July 22, 1944 at the age of 75.

GEORGE S. TROTTER, Olney; Kentucky School of Medicine, 1898. Had practiced in Indiana & Dundas several years before coming to Olney in 1916. Died after an illness of several months on July 23, 1944 at the age of 75 years.

CARL F. WEINBERGER, Chicago; Rush Medical College, 1907. Was staff surgeon at Evangelical Hospital. Died August 16, 1944, aged 70 years.

WILBUR STUART WOOD, Decatur; University of Illinois College of Medicine, 1925. Was attending medical school at the time of World War 1 when he became a member of the 149th Field Artillery and was wounded twice in action in France. After the war he re-entered medical school and served his internship at St. Luke's Hospital, Chicago. Doctor Wood's work in the treatment of children in the Crippled Children's clinic at Decatur and Macon County Hospital and in the Gunhild Johnson Memorial room for crippled children was judged the outstanding service to the community during the year. In September, 1937, he was named president of the Macon County Tuberculosis and Visiting Nurses' Association and was retained in 1938. Was stricken with a heart attack while on a vacation in Wisconsin on August 7, 1944 at the age of 44.

#### COUNCIL ON PHYSICAL THERAPY BECOMES COUNCIL ON PHYSICAL MEDICINE

The Council on Physical Therapy of the American Medical Association has become the Council on Physical Medicine, *The Journal* of the Association announces in its July 29 issue. This is in accordance with an action by the Association's House of Delegates at the recent annual session in Chicago. Discussing the change, *The Journal* says:

"The designation 'physical medicine' is a more inclusive term. Physical agents are used not only for therapy but also for diagnosis. Hospital departments of physical medicine, when they employ electric tests for reaction of degeneration or perform such tests as the cold pressor test, are employing physical agents not for therapy but for diagnosis.

"The Council has for some time interested itself in certain phases of occupational therapy, which is a branch of the broad field of physical medicine. The Council was informed that the American Occupational Therapy Association was anxious to have the Council give more attention to occupational therapy. Discussions between representatives of the Council and the American Occupational Therapy Association indicated that the association would welcome the inclusion of occupational therapy under a Council on Physical Medicine.

"Under the following definition for physical medicine, the entire field can be covered by a Council on Physical Medicine: Physical medicine includes the employment of the physical and other effective properties of light, heat, cold, water, electricity, massage, manipulation, exercise and mechanical de-

vices for physical and occupational therapy in the diagnosis and treatment of disease. The Council believed that it would be wise to appoint a special subcommittee of five physicians interested in occupational therapy who could help to bring this phase of therapy more fully under direct medical supervision.

"Finally there is definite precedent for the use of the term 'physical medicine,' which has long been considered the most acceptable term by our British colleagues. The Conjoint Board of the Royal College of Physicians and the Royal College of Surgeons has just instituted a diploma in physical medicine."

"With its new name the Council on Physical Medicine will continue to function as it has always functioned but will devote additional attention to problems of occupational therapy."

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*Saturday Morning Clinic in a County Health Department . . .* Gray hair neatly parted, an ingratiating smile on her face, flowered cotton print to her ankles, old at not quite sixty, the next visitor explains to a nurse in a thin toothless treble that she's worried about her chest. She feels a tightness there, and she has just lots of colds. Yes, she does spit up sometimes. Yes, her father died of tuberculosis when she was seventeen. Well, she really ain't never had a doctor. Epidemiologically, this hardy spinster offers no very severe threat to the health of her neighbors, but she is troubled, and she may after all these years have a developing lesion, and so the health officer gives her a tuberculin test and the nurse tells her how to collect sputum for examination in the laboratory and she goes off with a blank which, when signed by some doctor whom she knows, will entitle her to a free X-ray. Annual Report. The Commonwealth Fund, 1941.

---

*Diabetic patients showed evidence of active pulmonary tuberculosis in 4% of all cases examined in local chest X-ray surveys.* E. L. Leech, M.D., Health News, April 27, 1942.

---

*Tuberculosis is an old dangerous enemy.* It lies in wait particularly for the young adult, whose services today and after the war must be of supreme value to the nation. Tuberculosis always increases in war-time, and measures must be taken now if the increase that we may expect in the near future is to be stemmed. Existing tuberculosis services deal with those who have symptoms of disease, or who feel ill. A new advance is now needed. This means finding cases in whom the disease has started, but not yet caused the patient to feel ill. Often nothing may be necessary other than careful watching; in some, short treatment is required, but in all cases there is a better hope of eradicating the disease. From Bul. of Nat'l Assn. Prev. of Tuber., Eng., Jan. 11, 1942.

# P. R. N.

The Jocular Jingles of C. G. F.

by

Charles G. Farnum M. D.

Peoria, Ill.

## BATHING BEAUTIES

Recently I visited some public bathing beaches  
That I might inspect the beautiful peaches,  
That we are told,  
Infest such places in types and varieties  
manifold.

There were immense crowds of humans whose  
topographical anatomy was on exhibition,  
And it required but little erudition  
And a meagre aesthetic sense,  
To conclude that ninety nine per cent of all  
bathers should do their stuff in  
solitude behind a high board fence.

The age range was from little toddlers  
To ancient waddlers.  
The perpendicular limits were from squatty  
abbreviated runts,  
To elongated, gangling, ungainly, misshapen  
specimens doing awkward stunts.

Horizontally one saw everything from  
emaciated monstrosity  
To the gelatinous undulations of advanced  
adioposity,  
Said adioposity, starting with a series of  
sagging chins,  
Extends downward and outward an indeterminate  
distance to where the alleged waist  
line begins,  
Then abruptly recedes until it contacts a  
pair of flabby thighs  
Which surmount two shapeless calves of scanty  
size.

Legs I saw of every type, color, length, size  
and shape:  
An occasional one might perhaps be awarded a  
blue ribbon but on the vast majority I  
would be inclined to hang a bunch of  
crepe.  
If horsemen are justified in the importance  
they attach to trim and shapely legs in  
distinguishing thoroughbreds from scrubs,  
Then a large proportion of the pedal extremities  
I observed must have been fastened on a  
sour bunch of dubs.

Some were as shapely as an elongated worm,  
While many resembled the underpinning of a  
ponderous pachyderm.  
Bowed legs, knock knees and flat feet  
Made that part of the picture complete.

I inspected backs without number,  
All visible down to the fifth lumbar.  
There were humpbacks, lateral curvatures and  
compensatory lordosis,  
To say nothing of glazed ptosis.  
But, by and large, I would recommend, if you  
are going to observe bathers as I tried  
to do

That you limit yourself to a rear view.  
If you look only at backs  
You are less likely to have nausea attacks.  
A front view is a sight  
That is pretty sure to destroy one's appetite.  
And a lateral silhouette  
Is worse yet.

As a matter of fact about the only place from  
which to view public beach bathers and  
not receive a series of aesthetic shocks,  
Is from a distance of about six blocks.

Is it true, then, that only ugly and misshapen  
human forms abound?  
Are there no truly beautiful ones to be found?  
Well, perhaps a few,  
But they are hopelessly lost in the  
preponderance of an otherwise motley crew.

Of course it is all right to visit bathing  
beaches if your sense of humor is  
sufficiently keen,  
For a fat human in a bathing suit is about the  
funniest thing you ever have seen.  
But if you take the thing seriously and your  
quest of beauty  
Is a sort of artistic obsession or aesthetic  
duty,  
Then stay away from the beaches and be  
satisfied with such beauty as you can  
discover  
On a billboard or a magazine cover.

---

*Tuberculosis in the Army.* Medical tests of Canadian army recruits are being sharpened to the point where today only about one out of 1,000 men develop tuberculosis after being accepted in the army. Since May, 1941, a total of 895 men have been discharged from the army because of pulmonary tuberculosis, but of that number 251 had served for several months before being X-rayed. Major G. T. Zumstein, Royal Canadian Army Med. Corps., Bulletin Canadian Tuber. Assn., March 1942.

# NEW CONVENIENT ANEMIA THERAPY

## BĒPRON\*

### IN CAPSULE FORM!

Another way  
to provide the *thorough*  
iron-plus-liver medication

Many of your patients will be grateful for the new convenient Capsules Bepron. They are so easy to take on the job, so easy to carry in purse or pocket. New Bepron Capsules, like liquid Bepron, help to insure quick return to normal blood levels. recovery is *lasting*, and effectiveness is *independent of the patient's diet*.

Every 4 Bepron Capsules provide the same amount of ferrous iron and water-soluble principles of fresh whole beef liver as one tablespoonful of liquid Bepron, and lead to the same successful results.

Bepron Capsules are supplied in bottles of 100.

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**BEEF LIVER  
WITH IRON**

\* REG. U. S. PAT. OFF.

# Doctor of Medicine

**H**E WEARS the same uniform . . . He shares the same risks as the man with the gun.

*Right this very minute you might find him in a foxhole under fire at the side of a fallen doughboy...*

*Jumping with the paratroopers...riding with a bomber crew through enemy fighters and flak...*

*Or sweating it out in a dressing station in a steaming jungle...*

Yes, the medical man in the service today is a fighting man through and through, except he fights without a gun.

They call him "Doc." But he's more than physician and surgeon: he's a trusted friend to every fighting man.

And doctor that he is...doctor of medicine and morale...he well knows the comfort and cheer there is in a few moments' relaxation with a good cigarette...like Camel.

For Camel, with the fresh, full flavor of its incomparable blend of costlier tobaccos and its soothing mildness, is the favorite cigarette with men in *all* the services.\*

## First in the Service

\*With men in the Army, Navy, Marine Corps, and Coast Guard, the favorite cigarette is Camel.  
(Based on actual sales records.)

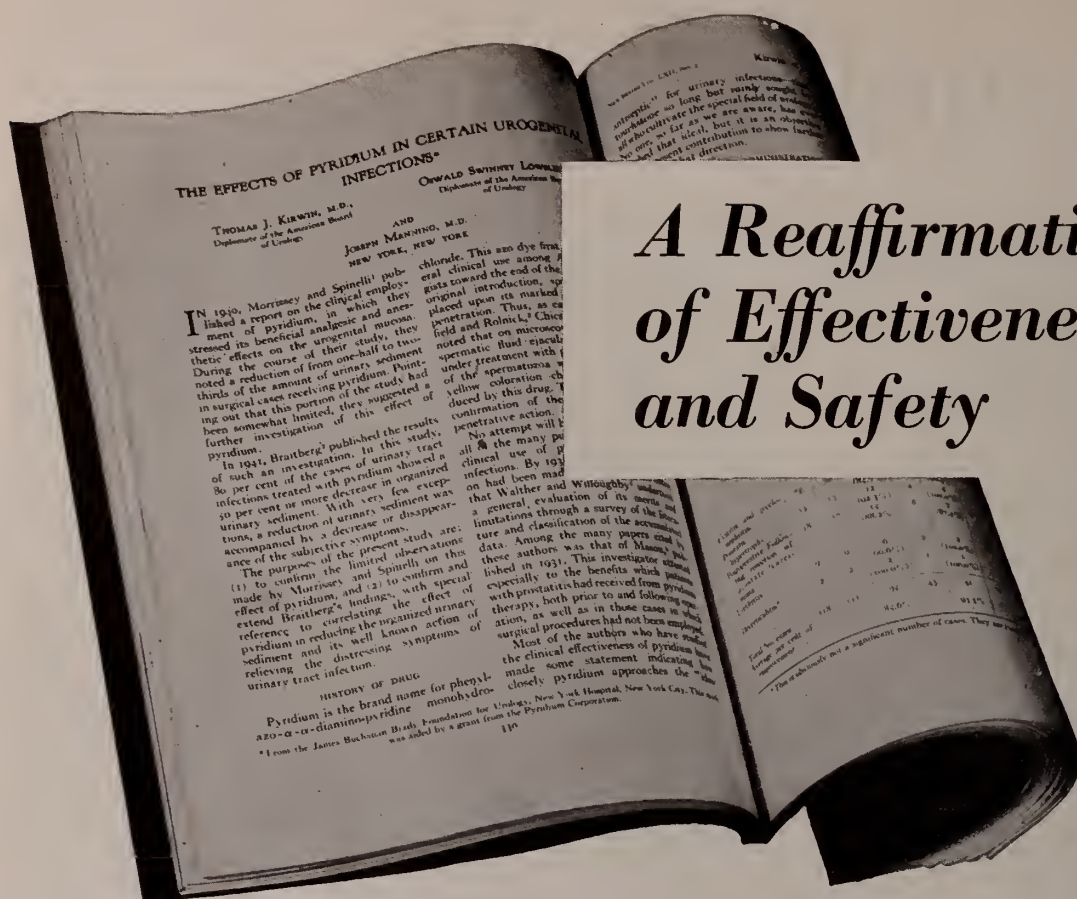
# Camels

COSTLIER TOBACCOS



# ...and Morale





## A Reaffirmation of Effectiveness and Safety

THE recent careful study conducted by Kirwin, Lowsley, and Menning, of the James Buchanan Brady Foundation for Urology, New York Hospital, and published in the December 1943 issue of *The American Journal of Surgery*, reaffirms the many previously published reports emphasizing the clinical effectiveness and complete safety of Pyridium in the symptomatic treatment of common urogenital infections.

In this study of 118 cases of common urogenital infections, routine Pyridium therapy administered for a period of two weeks produced relief of the distressing symptoms in the following percentage of cases: Pain on urination was alleviated or abolished in 95.3 per cent of the cases; burning on urination was relieved in 93.6 per cent of the cases; frequency was greatly reduced or abolished in 85 per cent of the cases; and nocturia was reduced or eliminated in 83.7 per cent of the cases.

The prompt and effective symptomatic relief provided by Pyridium is extremely gratifying to the patient suffering with distressing urinary symptoms. Gratifying also is the confidence in the physician and his therapy which is so evident among patients who are treated with Pyridium.



More than a decade of service in urogenital infections

# PYRIDIUM

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## CONSIDER FLAVOR

### As Well As Nutritive Content

There is an increasing body of opinion among pediatricians and doctors of general practice that the recommendation of a flavored wheat cereal for infant feeding has certain advantages . . . more particularly in instances of mild anorexia.

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#### **MALT-O-MEAL ANALYSIS**

( PER OUNCE )

Protein . . . . .	3.6 gm.
Carbohydrates . . . . .	21.25 gm.
Fat . . . . .	0.15 gm.
Thiamine . . . . .	0.19 mg.
Riboflavin . . . . .	0.067 mg.
Niacin . . . . .	0.63 mg.
Calories . . . . .	97.5



#### **FREE TO DOCTORS:**

*Trial-size packages of Malt-o-Meal for distribution to mothers. Mailed prepaid. Just ask your secretary to write today.*

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Relief with Malcogel is distinguished by the absence of many faults inherent in earlier forms of therapy.

*Malcogel does not produce an acid rebound*

*Malcogel does not cause alkalosis*

*Malcogel does not have the constipating tendency of simple alumina therapy*

Pleasantly and simply Malcogel's prolonged action protects and soothes the injured mucosa to achieve an unbroken cycle of comfort and an early rehabilitation of the patient.

\*Trademark

# MALCOGEL

a palatable suspension, each ounce containing 75.0 grains of magnesium trisilicate and 7.5 grains of aluminum hydroxide. Supplied in bottles of 12 oz.

NEUTRALIZE THE AXIS — BUY MORE WAR BONDS



Cheplin's

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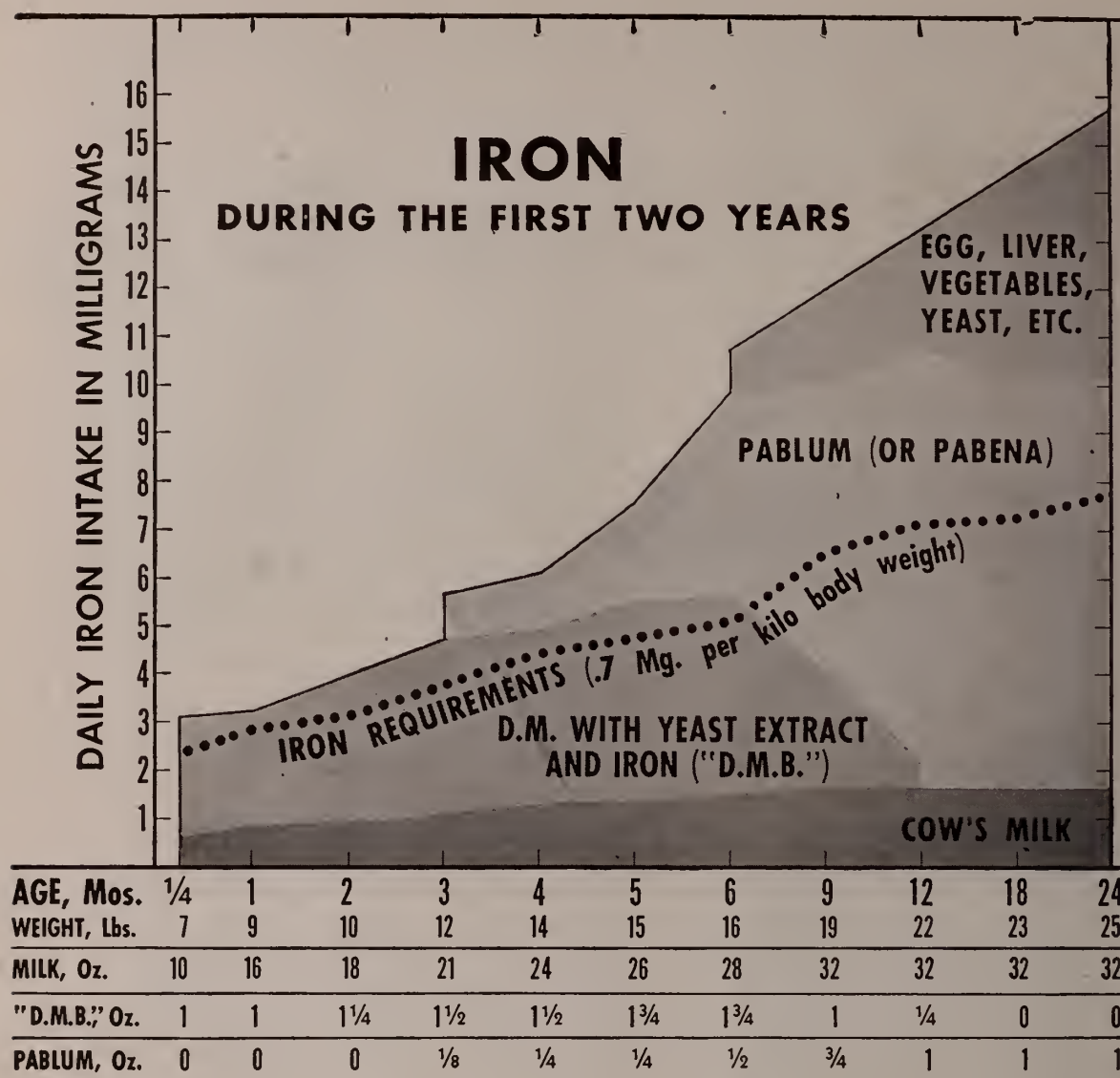
The promise of penicillin . . . precious, life-saving antibiotic derived from *Penicillium notatum* . . . will not be fully realized until this drug is available in sufficient quantities to work its miracles in every city, town, and hamlet in the country.

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STANDARDS AT  
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## IRON DURING THE FIRST TWO YEARS

During fetal life iron accumulates (in the form of hemoglobin) in the infant's body. After birth the hemoglobin frequently drops to 50% by the third month, especially in prematures. Neither breast milk nor cow's milk is capable of offsetting this loss, as they are deficient in iron. This chart shows that when the carbohydrate and cereal supplements contain iron, a sizeable margin of safety over the requirements can be maintained, not only during the important first six months, but throughout the first two years of life.

More iron than the calculated requirement is needed because some iron is not utilized. In rapidly growing, or poorly nourished infants, and in the presence of infection, the need for iron may be even greater than is indicated in this chart for normal infants.

**MEAD JOHNSON & COMPANY, Evansville 21, Ind., U.S.A.**

# Heroes of the United States Medical Services



DR. HENRY ROSE CARTER  
(1852-1925) U. S. Public Health Service



AS ASSISTANT SURGEON of the U. S. Marine Hospital Service, Dr. Carter pioneered in the study of two of the most perplexing medical problems...malaria and yellow fever. His outstanding work in Mississippi in the control of these diseases provided the basis for the triumphs of Reed and Gorgas. His studies of communicable disease led to the development and modernization of maritime quarantine. Weeks of time and millions of dollars' worth of valuable goods were saved by his modernization of archaic quarantine restrictions. Dr. Carter laid the groundwork for today's goal of modern quarantine: "maximum safety with minimum delay."

Ciba Pharmaceutical Products, Inc. salutes the men in the Medical Services of the United States as well as those in civilian forces responsible for health "behind the lines."

## Father of Modern Maritime Quarantine



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TOMORROW'S MEDICINES FROM TODAY'S RESEARCH

# IN WARTIME ANESTHESIA

**M**ILITARY MEN<sup>1</sup> writing on wartime anesthesia state that a heavy solution of Nupercaine\* (1:200) affords anesthesia of long duration with no circulatory disturbances in their series. Furthermore, they note that Nupercaine Hydrochloride is highly useful for rectal operations and serves admirably for high abdominal anesthesia.

As a spinal anesthetic, Jones solution (Nupercaine 1:1500)—which is receiving enthusiastic acclaim by the British—may be used in the management of thoracic war injuries<sup>2</sup>.

## NUPERCAINE

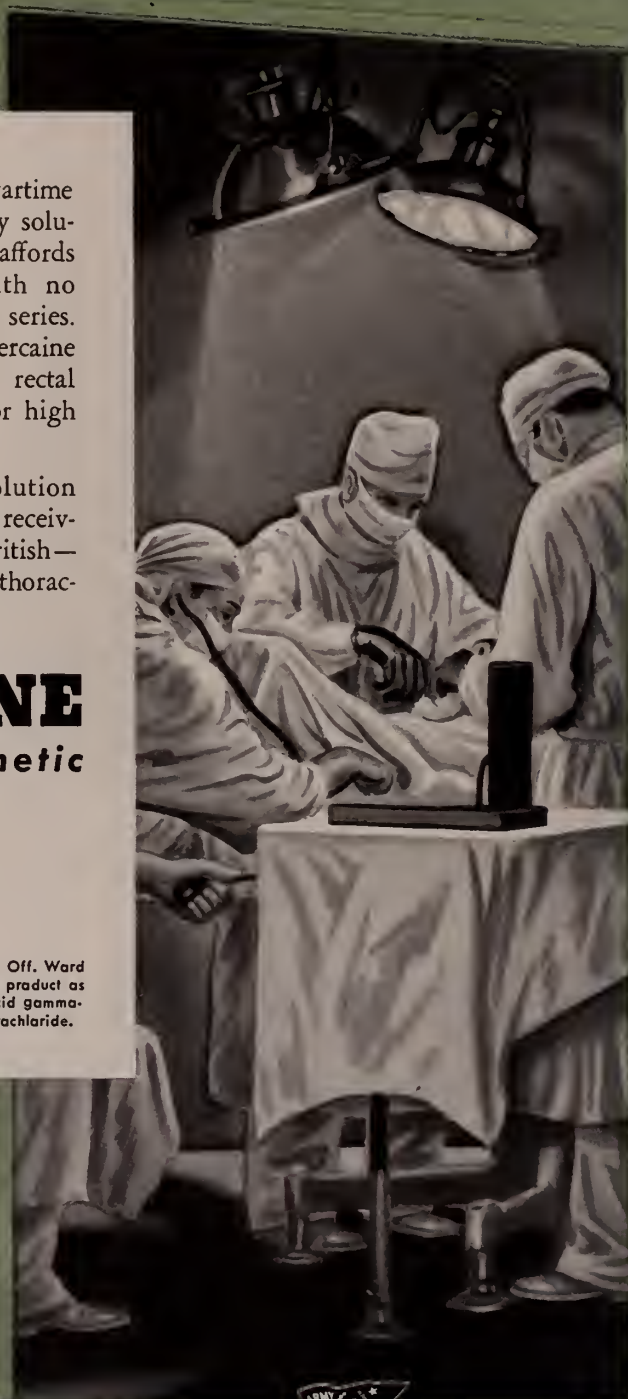
*a long-acting anesthetic*

<sup>1</sup> Clement, F. W.; Elder, C. K.: *Anesthesiology*, 4:516, September, 1943.

<sup>2</sup> Farsee, J. H.; Shefts, L. M.; Burbank, B.; Fitzpatrick, L. J.; Burford, T. H.: *J. Lab. & Clin. Med.*, 28:418, January, 1943.



\*Trade Mark Reg. U. S. Pat. Off. Ward "Nupercaine" identifies the product as alpha-butylaxycinchanic acid gamma-diethylethylenediamide hydrachlaride.



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**F**LOWING through the Mississippi Valley, "Old Man River" carries along over a million tons of waste every day, depositing it into the Gulf of Mexico.

Similarly, in the intestinal tract, there is no more efficient method of flushing away waste than by the use of *liquid bulk*—as formed by Sal Hepatica plus water.

Clinical and laboratory tests prove that:

★ in the isolated loop of a dog's ileum, a

laxative solution of Sal Hepatica increased the liquid bulk by 34 per cent in one hour.

★ in thistle tube experiments, a Sal Hepatica solution increased the liquid bulk by 100 per cent within 6 to 12 hours.

★ Sal Hepatica's liquid bulk helps stimulate bowel muscles, maintain a proper water balance. And the salines of Sal Hepatica relieve gastric acidity, help promote the flow of bile.

Bristol-Myers Company, 19RR West 50th St., New York 20, N. Y.

**TO HELP FLUSH THE INTESTINAL TRACT**

**Sal Hepatica** **SUPPLIES** **Liquid Bulk!**





## crowds and coryza!

*THE COMMON COLD . . . it mixes with the crowds, and it meddles to an extent which has meant as many as 23,000,000 persons ill with colds during a single week.<sup>1</sup> A review of the "sick list" in American shops and offices reveals other startling figures on the anti-production menace of the common cold. For instance, a reliable survey<sup>2</sup> shows that, in one winter month, thousands of workers were affected, with a resulting loss of 1,600,000 man-days of labor. In summary: Three out of four are attacked in winter . . . one out of twenty, even in midsummer. Immunologic responses to the so-called cold virus are relatively transient. Prophylactic indications, therefore, are directed toward active immunization against bacteria associated with the more severe types of common cold.*

'VACAGEN' ORAL COLD VACCINE TABLETS are designed to produce active immunity against ten, specific, pathogenic bacteria believed responsible for the more severe manifestations of colds, gripe, and similar acute infections of the upper respiratory tract.

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1. Ending February 24, 1942. 2. November 24-December 20, 1941. <sup>1</sup>American Institute of Public Opinion.

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*Easily digested plain Knox Gelatine  
adds variety and protein food value  
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Sulfonamides are bacteriostatic; not bactericidal; not self-sterilizing. Thus a contaminated sulfonamide preparation, applied locally, may act as a therapeutic Trojan horse, releasing pathogenic bacteria inside the body's primary defenses.

'Sulfathiadox'\* Ointment, however, is *self-sterilizing*. This unique preparation contains microcrystalline sulfathiazole, 5%, with oxygen-liberating urea peroxide, 1%, and chlorobutanol, an antifungal preservative, 0.5%.

'Sulfathiadox' Ointment, recently developed by the Warner Institute for Therapeutic Research, is

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The special-water-washable, oil-in-water base of 'Sulfathiadox' Ointment assures better "point-of-contact" utilization of the sulfathiazole and is readily miscible with purulent and serous exudates. 'Sulfathiadox' Self-Sterilizing Sulfathiazole Ointment is supplied in 1-ounce tubes and in 1-pound jars... William R. Warner & Co., Inc., New York 11, N.Y.

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## BOOK REVIEWS

**MINOR SURGERY:** Edited by Humphrey Rolleston and Alan Moncrieff. Published by Philosophical Library, New York. Price \$5.00.

This small but well written book covers a considerable number of subjects. There are eighteen chapters written by specialists in the various branches of medicine. The first chapter on "Minor Wounds" is followed by consideration of such subjects as sprains, the feet, the hand, the mouth, the nose and throat, the ear, the eye, bursae and ganglia, and a number of other important subjects, some given in more detail than others.

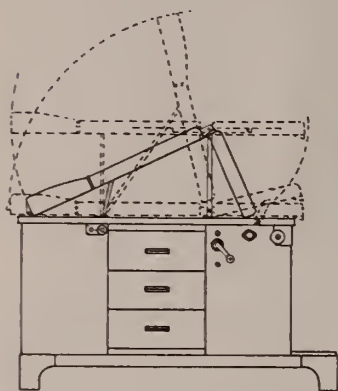
The non-operative treatment of hernia, trusses and belts, give the general principles of importance in the proper fitting of these appliances. The various types of trusses are described, then the author's ideas as to the proper fitting of trusses for the several types of hernia. Belts for obesity, visceroptosis and the lax abdomen are likewise described in this chapter.

The treatment of varicose veins, ulcers and phlebitis are considered in a special chapter out-

lining the general features of treatment of uncomplicated then the more complicated cases, with an interesting appraisal of the decision as to cases which are suitable for injection and those suitable for operation.

One chapter is devoted to the considerations of minor surgery in childhood such as the removal of tonsils and adenoids, acute otitis media, acute lymphadenitis, circumcision, birth fractures and a number of other conditions prevalent among children. The last chapter is quite interestingly devoted to considerations of the subject of anesthesia. This includes general anesthesia, local anesthesia, inhalation anesthesia, intravenous anesthesia, with a careful appraisal of the indications for each, and a considerable amount of information relative to the technique to be used.

Although no effort is made to differentiate between minor and major surgery in the book, there is much information contained in it which will be of interest to many even though it must not be considered in any way as a text book on minor surgery giving minute details on surgical procedures.



**The  
All Purpose  
Top  
Hamilton  
Table**

Now, for the first time, the general practitioner can buy a standard table and secure such positions as the rectal examining, Trendelenburg, high horizontal height for pediatrics, and many others. All mechanical parts are concealed. Write for further details.

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**SULFONAMIDE THERAPY IN MEDICAL PRACTICE;**  
By Frederick C. Smith, M.D., M.Sc.  
(Med.), F.A.P.S., Editor of Philadelphia  
Medicine, official organ of the Philadelphia  
County Medical Society; Editor of The Medical  
World; Lieutenant Colonel, Medical Reserve  
Corps, Army of the United States. Foreword  
by George Morris Piersol, B.S., M.D.,  
Professor of Medicine, Graduate School of  
Medicine, University of Pennsylvania; Edi-

(Continued on page 50)

**DURALUMIN AND ENGLISH WILLOW LIMBS  
MECHANICAL ARMS**

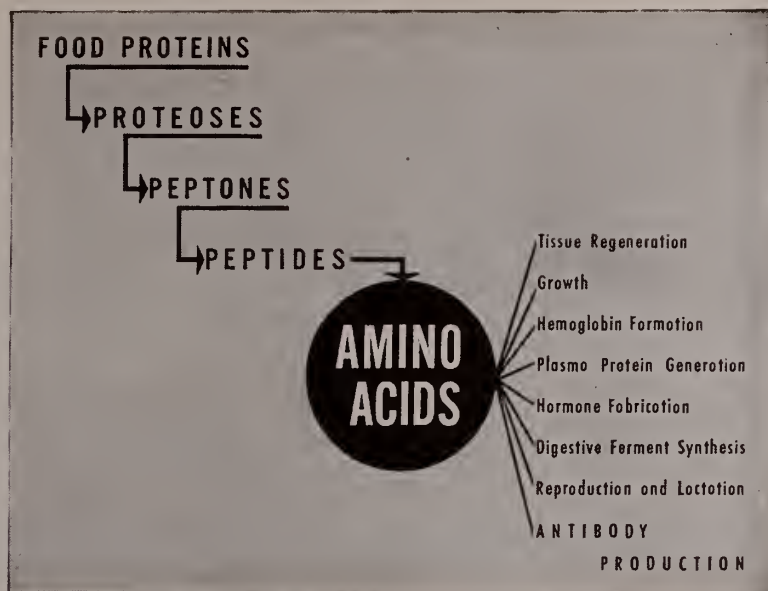
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## *Resistance to Infection*

and antibody production apparently are closely linked to quantitative and qualitative protein-adequacy of the diet.\* Meat not only is a rich source of proteins, but its proteins, being of highest biologic value, are the RIGHT KIND for antibody production.



The Seal of Acceptance denotes that the nutritional statements made in this advertisement are acceptable to the Council on Foods and Nutrition of the American Medical Association.

\*"It is evident, therefore, that antibody production is but a phase of protein metabolism and that a protein deficiency, whether due to an inadequate protein intake, to protein loss, or to defective protein metabolism, must, in time, impair the maturation or preservation of the antibody mechanism. . . . This means, in turn, that food may play a decisive part in infectious processes in which antibody fabrication is desirable." Cannon, Paul R.: Protein Metabolism and Acquired Immunity, J. Am. Dietet. A. 20:77 (Feb.)1944.

**AMERICAN MEAT INSTITUTE**  
MAIN OFFICE, CHICAGO...MEMBERS THROUGHOUT THE UNITED STATES

## BOOK REVIEWS (Continued)

tor-in-Chief, The Cyclopedia of Medicine, Surgery, and Specialties. Illustrated with numerous Engravings, Graphs and Tables. F. A. Davis Company, Publishers, 1944. Philadelphia.

The author endeavors in his volume to give a critical analysis of the present knowledge concerning the sulfa drugs. In presenting this information concerning the therapeutic value of these preparations he repeatedly issues the warning that none of the group is entirely non-toxic, and that reactions can occur in susceptible individuals. Pleas are made repeatedly that the sulfa drugs be used discriminately and only where there is reason to believe that they are actually indicated.

Since the appearance of sulfanilamide the author realizes that the biochemists have been working overtime to develop other members of the group. It is quite obvious to all that the last word has not been spoken on this important subject of evaluation of the sulfonamides, and

before a book on the subject is off the press there may be newer and better types available.

Although it would be a herculean task to completely cover the literature on the sulfa drugs published in recent years, the author has endeavored to review what he considers the best and add his personal comments. He apparently does not always agree with the opinions expressed by others on various phases of the subject. Contraindications to the use of sulfonamides are well discussed and should be of much interest to the readers of the book.

Changes in the blood are well described and the author stresses repeatedly the necessity for careful blood checks in patients receiving these drugs and this check is to include platelet count which is highly important.

The book is well written, covers the more important points in the consideration of the sulfa drugs and should be of much interest to many physicians using them, some perhaps not so discriminately as others.

(Continued on page 52)

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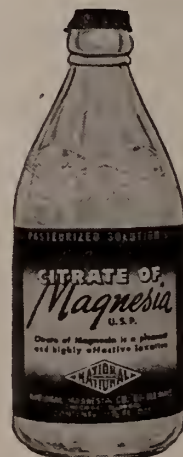
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It restores the alkali reserve of the body, thereby overcoming the toxemia which is in the blood.

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The action of Decholin is exerted specifically upon the hepato-biliary

apparatus. It increases biliary flow as much as 200%, resulting in a copious outpouring of thin, free-flowing secretion—true hydrocholeresis.

This thin liver-bile, secreted under increased pressure produced by Decholin, washes before it inspissated accumulations, promotes better drainage, lessens absorption of possible metabolites of infection.

This desirable pharmacologic behavior makes Decholin of established value in the management of chronic cholecystitis, noncalculous cholangitis, biliary dyskinesia, and pre- and postoperatively in gallbladder surgery. Decholin is contraindicated only in complete obstruction of the common or hepatic bile duct.

*Physicians are invited to send for a copy of the 4th (condensed) edition of the brochure "Biliary Tract Disturbances"*

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## Mercurochrome

(H. W. & D. brand of merbromin, dibromoxymercurifluorescein-sodium)

is economical because stock solutions may be dispensed quickly and at low cost. Stock solutions keep indefinitely.

Mercurochrome is antiseptic and relatively non-irritating and non-toxic in wounds.

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### BOOK REVIEWS (Continued)

**COLLECTED PAPERS OF THE MAYO CLINIC AND THE MAYO FOUNDATION** Edited by Richard M. Hewitt, B.A., M.A., M.D., A. B. Nevling, M.D., John R. Miner, B.A., Sc.D., James R. Eckman, A.B. and M. Katharine Smith, B.A. Volume XXXV 1943. Published June, 1944. W. B. Saunders Company, Philadelphia and London. Price \$11.00.

For 35-years the Mayo Clinic and Mayo Foundation in their "Collected Papers" have endeavored to present a volume which would appeal to the physicians in practice regardless of their specialties. In their efforts the interests of the man in general practice have never been neglected. Some of these articles have appeared in the "Proceedings of the Staff Meetings of the Mayo Clinic" in full or in abstract.

As usual a wide range in the field of medicine is covered in these collected papers. The alimentary tract is covered in the first 160 pages giving a wide range of subjects in this important area, then a considerable number of papers relative to the genito-urinary organs, ductless glands, blood and circulatory organs, chest, skin, head, trunk and extremities, radiology and physical medicine, anesthesia and gas therapy, and miscellaneous subjects.

As would be expected in this volume, there are many discussions on the use of penicillin and the sulfonamides with discussions of their indications and contra-indications. Many subjects relative to war surgery and other effects of the war on medical practice are well presented.

The "Collected Papers" will be of interest to all practitioners and should be a "must" in any modern medical library.

## Books Received

The following books have been received for reviewing, and are herewith acknowledged. This listing should be considered as a sufficient return for the courtesy of the sender. Books that appear to be of unusual interest will be reviewed as space permits each month. Readers desiring additional information relative to books listed, may write the Editor who will gladly furnish same promptly.

**CLINICAL UROLOGY:** By Oswald Swinney Lowsley, A.B., M.D., F.A.C.S., Director of the Department of Urology (James Buchanan Brady Foundation) of the New York Hospital, and Thomas Joseph

(Continued on page 54)



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## BOOKS RECEIVED (Continued)

Kirwin, M.A., M.S., M.D., F.A.C.S., Attending Surgeon of the Department of Urology (James Buchanan Brady Foundation) of the New York Hospital. Drawings by William P. Didusch. Second Edition. Two Volume Set. Baltimore, The Williams & Wilkins Company, 1944. Price per set, \$10.00.

A LABORATORY MANUAL OF PHYSIOLOGICAL CHEMISTRY: By D. Wright Wilson, Benjamin Rush Professor of Physiological Chemistry, University of Pennsylvania. Fifth Edition. The Williams & Wilkins Company, Baltimore, 1944. Price \$2.50.

PRACTICAL METHODS IN BIOCHEMISTRY: By Frederick C. Koch, Frank P. Hixon Distinguished Service Professor Emeritus of Biochemistry, University of Chicago. Director of Biochemical Research, Armour & Co., Chicago, and Martin E. Hanke, Associate Professor of Biochemistry, University of Chicago. Fourth Edition (Revised). The Williams & Wilkins Company, Baltimore, 1943. Price \$2.25.

THE ART OF ANESTHESIA. Seventh Edition. By Paluel J. Flagg, M.D., Visiting Anaesthetist to Manhattan Eye and Ear Hospital; Consulting Anaesthetist to St. Vincent's Hospital, New York; etc., 166 Illustrations. J. B. Lippincott Company, Philadelphia. Price \$6.00.

SEGMENTAL NEURALGIA IN PAINFUL SYNDROMES; By Bernard Judovich, B.S., M.D., William Bates, B.S., M.D., F.A.C.S., F.I.C.S., with Foreword by Joseph C. Yaskin, M.D., Professor of Neurology, University of Pennsylvania Graduate School of Medicine. 178 Illustrations. F. A. Davis Company, Philadelphia. 1944. Price \$5.00.

SIMPLIFIED DIABETIC MANAGEMENT; By Joseph T. Beardwood, Jr., A.B., M.D., F.A.C.P., and Herbert T. Kelly, M.D., F.A.C.P., Fourth Edition. J. B. Lippincott Company, Philadelphia. Price \$1.50.

METASTASES, Medical and Surgical; By Malford W. Thewlis, M.D., Foreword by Hubert A. Royster, A.B., M.D., F.A.C.S. With 13 Illustrations. Charlotte Medical Press, Charlotte, North Carolina, 1944. Price \$5.00.

## COMBINE IMMUNIZATION AGAINST WHOOPIING COUGH, DIPHTHERIA

Studies Show That Infants Can Be Immunized  
Successfully Against The Two Diseases At  
The Same Time, Investigators Say

Studies show that infants can be immunized successfully against diphtheria and whooping cough at the same time, Louis W. Sauer, M.D.; Winston H. Tucker, M.D., and Eva Markley, R.N., Evanston, Ill., report in *The Journal of*

the American Medical Association for August 5. This finding is important in view of the increasing number of immunization procedures required in early life to protect against various disease hazards.

"The routine injection of diphtheria toxoid (diphtheria toxin rendered nontoxic by incubation with formaldehyde) during the latter part of the first year of life," the three investigators explain, "has almost completely eliminated diphtheria in most localities; and, during the time that infants after the age of 7 months, have been injected with potent pertussis vaccine (the killed whooping cough bacteria), whooping cough morbidity and mortality have decreased at an encouraging rate.

"Because diphtheria and whooping cough are most prevalent and serious in the first years of life, it seemed logical that immunization against the two diseases should be attempted at the same time by the injection of mixtures of diphtheria toxoid and potent pertussis vaccine. . . ."

They started their investigations in 1938. The present report is based on the findings from injections given 649 infants at the Evanston Health Department Immunization Clinic and at St. Vincent's Infant and Maternity Hospital, Chicago. All were more than 7 months of age when the injections were begun. The average age was about 8 months. Three doses were given each infant. To determine the time interval factor, the infants were injected at one week intervals at St. Vincent's and at three week intervals at the Evanston Health Department Clinic.

The three week intervals between the three doses yielded a higher percentage of immunity responses than when the doses were given at one week intervals. Ninety-seven per cent of the three week interval group had negative Schick tests for diphtheria and 72 per cent had high immunity tests for whooping cough. After a stimulating dose of pertussis vaccine, the whooping cough percentage rose to 95. Reactions were transient and usually mild.

The three investigators say that "No infant so injected during the past five years . . . is known to have contracted either disease."

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### ADVISES HOW THOSE WITH ULCERS OF STOMACH CAN AVOID FLARE-UPS

Such Patients, After Nervous Crisis, Should  
Take Food Every One Or Two Hours From  
Dinner Time To 3 A.M., Doctor Says

Pointing out how to avoid flare-ups of ulcers of the stomach and duodenum, Walter C. Alvarez, M.D., Rochester, Minn., says in *The Journal of the American Medical Association* for July 29 that "It is suggested that when a patient who has had an ulcer goes through an emotional crisis he should immediately start taking food every hour or two. He shouldn't wait for the expected flare-up or hemorrhage or perforation. The extra feedings are probably most needed between the hours of 10 p.m. and 3 a.m."

Explaining the reasons for this advice, Dr. Alvarez says:

"A man of 50 who had always been well discovered one day that the man who for twenty

years had been his brother-in-law, his closest friend and his business partner had been falsifying the books in order to steal from him. All that night he lay awake in great mental distress, and next day he had a big gastric hemorrhage. Another man, a physician, after examining a woman's stomach with a roentgenoscope (an x-ray apparatus for viewing the body on a screen), discovered that he had used a current of 60 milliamperes instead of the usual 3 milliamperes. After lying awake all night worrying over the expected burn and resultant damage suit he found himself almost incapacitated by the pain of a bad ulcer. Another man, when a violent strike in his factory distressed him terribly, had a big hemorrhage. A woman who adored her peppery little daughter-in-law one day inadvertently offended her and brought down on her head a storm of abuse which nearly killed her. Next day a long-healed ulcer flared up and perforated. A woman who heard that her soldier husband had just been killed at the front

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promptly had a hemorrhage.

"Many such experiences will doubtless spring to the mind of every busy physician who reads these words, all illustrating what is well known today, namely that the patient with ulcer is in most danger of a flare-up or a catastrophe during the hours immediately following a distressing emotional storm. Then is the time when, probably with an increase in the acid gastric secretion, and perhaps a decrease in the alkaline and neutralizing secretions that flow into the duodenum, or a combination of these two processes, the acidity of the contents of the first portion of the duodenum becomes so high that an ulcer either develops or, if present already, promptly becomes greatly deepened. . . .

"Under the circumstances it would seem obvious that the time to start strenuous treatment should always be immediately after a psychic strain has come. Why should one wait until an ulcer has formed or, if present, has eaten its way into a blood vessel or clear through the wall of the intestine? Why wait for disaster when it

might perhaps be headed off and prevented?

"Furthermore, since it now appears probable that most of the injury to the duodenal mucosa (the mucous membrane in the duodenum) that is wrought by acid comes during those hours between 10 p.m. and 3 a.m., when, in the person with an ulcer temperament, the stomach tends to be empty of food but full of highly acid and unbuffered gastric juice, would it not be logical the evening after a nervous crisis has occurred to begin with either a constant antacid drip or the taking of food and antacids every one or two hours from dinner time on to 2 or 3 a.m.? The patient can easily set an alarm clock to wake himself perhaps at midnight and again at 2 a.m.

"For some years now I have been asking my patients with ulcer to do just this, and already some feel that the treatment has tided them over some bad crises in their lives and kept them from having a flare-up of their ulcer. Dozens of physicians with a tractable type of ulcer have told me that during the intervals in which their life dieting or other treatment."

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## STUDIES SHOW NICOTINE CAUSES CONSTRICTION OF BLOOD VESSELS

Three Investigators Say Habit Of Giving  
A Cigaret To A Wounded Soldier With  
An Injured Artery Is Inadvisable

Reporting studies showing that nicotine causes constriction of blood vessels, three Mayo Clinic investigators advise in *The Journal of the American Medical Association* for July 15 that the habit of giving an injured soldier a cigaret is not advisable if an injury to an artery has occurred, as spasm of the artery is common in such types of injuries and the constriction of blood vessels in a person sensitive to tobacco may cause irreparable damage.

Grace M. Roth, Ph.D.; Captain John B. McDonald, Medical Corps, Army of the United States, and Charles Sheard, Ph.D., Rochester, Minn., who studied the effect of smoking cigarets, also advise as a result of their observations that the smoking of standard cigarets should be avoided in the presence of peripheral vascular disease (disease of the smaller arteries).

Their observations on 6 normal subjects yielded the following results:

When the subjects were resting in a supine position after smoking two standard cigarets or French ashless cigaret paper with standard tobacco or standard cigarets in a British cigaret filter holder the cutaneous or skin temperatures of the extremities of all the subjects decreased. In contrast, as proof that this resulted from the nicotine content of the standard cigarets, when two corn silk cigarets were smoked there was little if any change of the cutaneous temperatures of the extremities.

When fully clothed normal subjects were sitting or engaged in slow walking, the temperatures of the extremities also decreased to the same degree after the smoking of two standard cigarets as while the subjects were in a resting, supine position.

Consistent changes of the electrocardiographic tracing (of the electrical impulses generated by the heart) developed after the smoking of two standard cigarets. The changes included an increase of the rate of the heart beat. Changes were negligible after the smoking of corn silk cigarets.

As further evidence of the vasoconstrictive

(constriction of the arteries) effects of the nicotine content of standard cigarettes, it was found that when a weak salty solution was given intravenously (by injection into a vein) previous to the intravenous injection of nicotine there was at first a slight drop of the cutaneous temperatures of the extremities, but when nicotine was added to the solution (without the knowledge of the subjects) the decrease was rapid and pronounced. After the injection of nicotine the electrocardiographic tracing demonstrated a definite increase of heart rate even greater than that seen after the subjects had smoked two standard cigarettes.

There was an increase of blood pressure and pulse rate after either the smoking of two standard cigarettes or the intravenous injection of 2 mg. of nicotine. After the smoking of two corn silk cigarettes there was little or no change of blood pressure and pulse rate.

As the three investigators point out, the effect of the smoking of tobacco on the circulation of man has been the subject of many excellent papers but there has been an apparent lack of agreement among various investigators as to the exact effect of the smoking of standard cigarettes on the vascular system (circulation), particularly as to whether or not the vasoconstriction was due to the nicotine from the cigarette or to the cigarette paper or even the breathing.

Because of the importance of this subject to the practicing physician, the three investigators deemed a further study of the subject desirable.

They made 66 observations on 4 male physicians and 2 female technicians whose ages ranged from 22 to 41 years. All were habitual smokers and inhaled during smoking. As they were accustomed to the procedures in the room in which the investigations were conducted psychic stimulation was at a minimum.

Standard cigarettes of different brands bought on the open market were used. As a control, cigarettes made of corn silk were smoked. Also comparative studies with standard cigarette paper and French ashless cigarette paper were made with equal weights of standard cigarette tobacco and corn silk to investigate the possibility of an irritating factor in the preparation or bleaching process of the paper. Also a popular British

(Continued on page 60)



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## NICOTINE (Continued)

cigaret filter holder was used with standard cigarettes.

Data were obtained in a constant temperature room with an environmental temperature of 78 F. and a relative humidity of 40 per cent. The subjects were given no food for fifteen hours previous to the tests, and during the test they wore lightweight short pajamas and except when otherwise noted were in the supine position on comfortable beds.

Temperatures were taken of the first and third toes of both feet and of the first and third fingers of both hands. Two cigarettes were smoked in succession until two thirds of each had been smoked. Simultaneous determinations of blood pressure, pulse rate and cutaneous temperature were obtained at one minute intervals during the smoking period, which generally lasted about twelve to sixteen minutes. The subjects inhaled the tobacco smoke with their accustomed depth and frequency. Further, the observations were continued for thirty minutes

to one hour after smoking. An attempt was made to avoid all unnecessary noise and other stimuli which might produce vasoconstriction during this period.

When an unlighted cigarette was puffed for the period it usually took to smoke two standard cigarettes there was little or no change of the cutaneous temperature of the extremities. The average decrease of cutaneous temperature after the smoking of two standard cigarettes was 1.8 degrees C. for the toes and 3.2 C. for the fingers.

The decrease of the cutaneous temperature of the toes was less than that of the fingers. "This difference," the three investigators say, "may be due to the effect of the small amount of nicotine on the sympathetic nervous system. Generally, in the simple heat regulatory mechanism of the extremities, vasoconstriction occurs first and more decidedly in the feet and later in the hands if there is a demand for further regulation."

"After our subjects had smoked standard cigarettes it was found that the blood pressure and

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pulse rate and the electrocardiogram returned to normal within five to fifteen minutes. However, the peripheral vascular constriction indicated by the cutaneous temperatures of the extremities persisted from half an hour to an hour and in some cases much longer. . . ."

## ANOTHER BENEFICIAL USE FOR PENICILLIN

Reporting five cases in which they say they obtained "brilliant results" with penicillin, William M. M. Kirby, M.D., and Virgil E. Hepp, M.D., San Francisco, say in *The Journal of the American Medical Association* for August 12 that the results "would seem to justify the hope that the present high mortality rate in cases of acute, subacute and chronic osteomyelitis (infection of the bone and marrow) of the facial bones will be drastically reduced when supplies of penicillin become generally available." The condition is one of the most serious complications of sinusitis. In contrast to the sulfonamides, they say, peni-

cillin prevents further spread of the infection so that the involved bone may be surgically removed.

## JOURNAL POINTS TO INCREASING DANGER OF RABIES

"Throughout the country the reported increase of rabies in dogs is a cause of mounting concern," *The Journal of the American Medical Association* for August 26 says. "Control measures have been instituted in many areas, including parts of southern California, eighteen Michigan counties, St. Louis, the environs of Baltimore and Newport, Ky. Reports from Indiana and the Bronx indicate an increase in the number of rabid dogs and of persons bitten by rabid dogs. If still more serious outbreaks are to be forestalled, such well known preventive measures as muzzling, incarceration and destruction of stray animals, and restraining of all owned dogs by leash, will doubtless have to be undertaken in many other communities."

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## ARMY PROVIDES MEDICAL KITS FOR PRISONERS HELD BY JAPANESE

The Army Medical Department has developed special medical supplies for shipment to the Far East in an effort to provide the best possible care for American prisoners under control of the Japanese. The specially packed supplies have been designed for distribution by the International Red Cross, and packing cases will be labeled in English and in Japanese. The new plan for making supplies available to American and Allied prisoners of the Japanese was developed by a committee of officers in the Office of the Surgeon General. Besides drugs, the shipments contain dressings, simple types of surgical and dental instruments, sterilizing equipment, insecticides and water purifiers. The shipments are prepared in three types of units: a 100 man unit containing five separate packages, a hospital unit and a bulk supplies unit. Ten 100 man units, plus the hospital and bulk supplies unit, contain supplies believed to be sufficient for the needs of 1,000 men for three months. In order to facilitate handling and make for easy recognition by non-English speaking labor the special plywood, waterproofed cases, each of which bears a large red cross and is addressed to the International Red Cross delegate, are painted in special colors according to the type of unit. The American Red Cross has requisitioned a number of units and has informed the Medical Department that it is hopeful that permission for distribution will be granted by the Japanese government.

Approximately 126 different drugs are provided, and each individual package of the 100 man unit contains a booklet with precise instructions, couched in simple, nontechnical terms, for use of the medicines. The 100 man unit contains those drugs which can be best used by laymen, while the hospital and bulk supplies units are intended for installations where professional services may be available. The medicines selected are those most useful in treating diseases known to be prevalent in the Far East and for ailments likely to beset persons living under prison camp conditions. Some of the diseases for which one or more medicines are prescribed, together with instructions for their use, are anemia, fevers, beriberi, blood poisoning, diarrhea, dysentery, skin infections, scurvy, pellagra, pneumonia, meningitis, ulcers and rickets.

As a result of the new supply plan, all shipments of British, Canadian and American medical supplies to prisoners of the Japanese in the future will be standardized and may be used interchangeably.

## EXPLAINS THERE IS NO SUCH DISEASE AS "JUNGLE ROT"

Apparently there is no such disease as "jungle rot," *The Journal of the American Medical Association* for August 26 advises in answer to a query.

"The United States Army Medical Department," *The Journal* says, "has no information concerning the disease called 'jungle rot.' Perhaps the term applies to a condition known as 'Barcoo rot,' which is a synonym for 'desert sore' or 'veld sore.' . . .

"From Panama comes information that the terms 'jungle rot' and 'tropical rot' are used by laymen to describe any sort of sore developing on the body, usually a severe form of . . . fungus, mold or yeast infection."

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### ANOTHER USE FOR THE RED BLOOD CELLS LEFT OVER IN PLASMA PRODUCTION

Another use for one of the by-products of plasma production — applying the left over red blood cells in the form of a paste to open wounds — is reported in *The Journal of the American Medical Association* for July 15 by Lieutenant Clifford K. Murray, M.C., U. S. N. R., and Captain C. M. Shaar, M.C., U. S. N.

Plasma is the liquid portion of the blood. Use of the left over red blood cells for the treatment of certain types of anemia already has been reported. Another left over portion or fraction of the whole blood in plasma production, known as gamma globulin and which contains all of the antibodies in the blood, also is being utilized as a preventive for measles and now is being released by the armed forces for civilian use.

The use of human red blood cell paste for topical application, the two navy doctors point out, "is not a panacea for chronically infected wounds but may be successfully employed in selected cases in which the slow healing is the result of local circulatory impairment. In our group of cases it was in this type of wound that the best results were obtained. This method is not indicated in tuberculous or syphilitic ulcers."

The two men have formulated a sterile paste composed of concentrated red blood cells, tragacanth and hexylresorcinol.

As for the method of application, the wound is

cleansed with a solution of sodium chloride and dry gauze. The paste is then applied with sterile cotton applicators. Superficial wounds and burns are treated by applying a thin film of paste over the area, which is allowed to dry before being covered with a sterile dressing. If infection develops, the crust is removed, the wound cleansed lightly with a solution of sodium chloride and a second application of the paste is used. A sterile scab soon develops under which the wound heals. In deep wounds the paste is applied freely and in relatively large quantities, after which the wound is covered with a sterile dressing. When the wound is redressed, the two men report, it is noted that a rather large quantity of the paste is absorbed by the affected tissues. The wounds are dressed either once or twice daily, depending on their condition or progress.

They report that 66 patients with open wounds have been successfully treated with the paste and powdered red blood cells. Four cases failed to improve under this method of treatment.

"The mode of action of the red blood cell paste," the two officers say, "is undetermined. The most plausible theory is that required nutritional elements or proteins are supplied to tissue which may be deficient in these substances because of inadequate circulation. The red blood cells appear to be absorbed to a certain degree by the tissues until the granulations reach the surface and a crust forms. This crust of red blood cells apparently serves the function of protection, a source of nourishment and as a scaffolding for the support of the connective tissue. The new epithelium (skin surface) extends over the surface under the crust, and when the latter drops off the surface is completely covered. The red blood cells appear to stimulate the growth of granulation tissue and then act as a medium for the growth of epithelial cells over the granulating surface. This is important, since the most frequent problem in connection with an extensive granulating wound is to get the epithelium to grow over the surface."

A diagnosis of the arrest of a tuberculous process cannot and should not be made unless stability of the diseased area is present under conditions of supervised activity. In tuberculosis, the fundamental purpose is to increase the work tolerance without the occurrence of symptoms or evidence of clinical activity, and the maintenance of a stable lesion by X-ray. I. D. Bobrowitz, M.D., *Amer. Rev. of Tuber.*, April, 1942.

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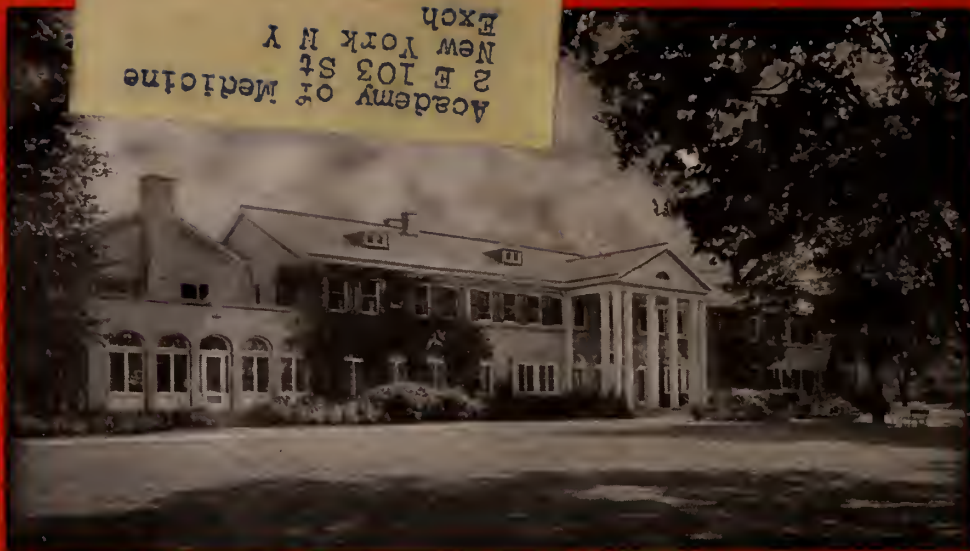
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VOL. 86  NO. 4

*October, 1944*

In This Issue

Transurethral Drainage of the  
Seminal Vesicles in Seminal  
Vesiculitis

+

The Bedside Diagnosis of  
Parenchymatous Liver Disease

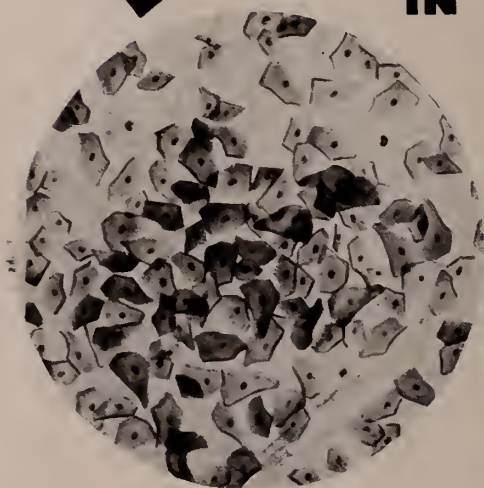
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(See page 35 for Table of Contents)

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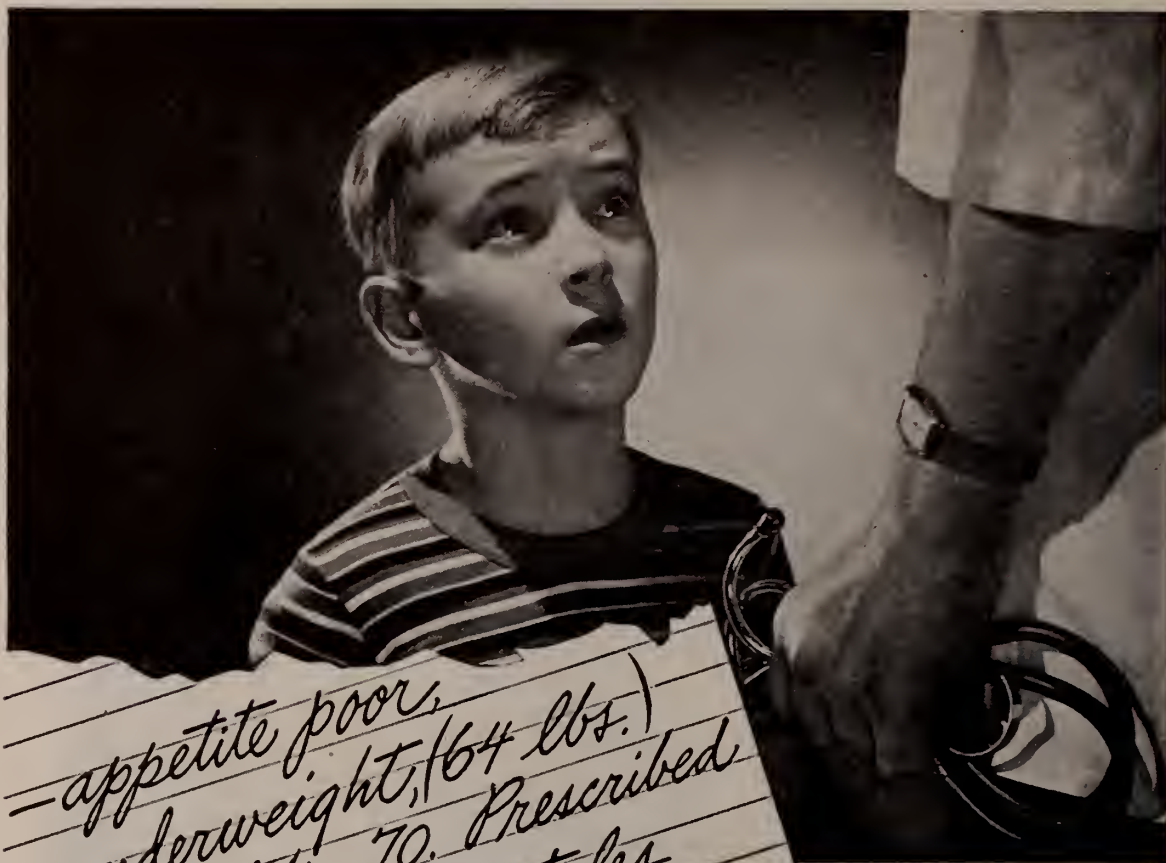
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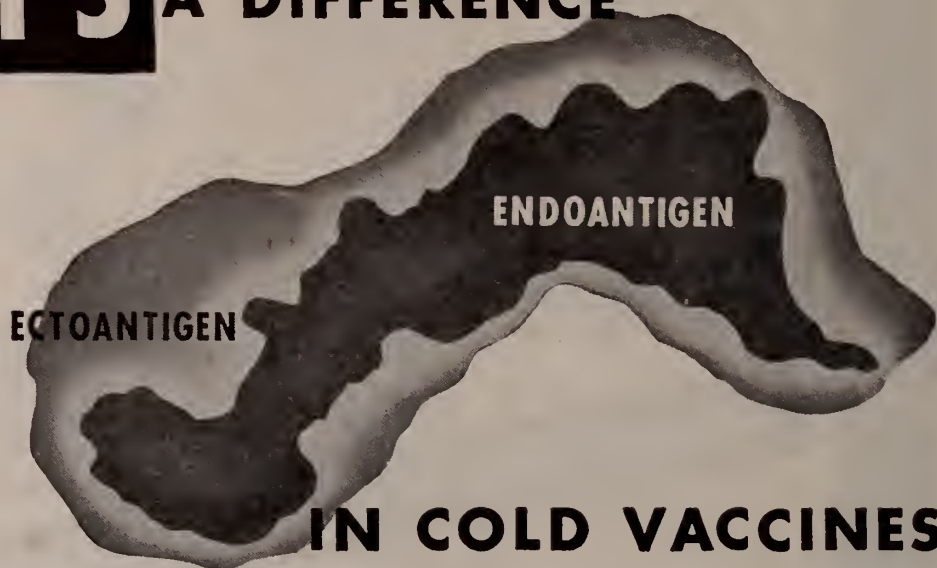
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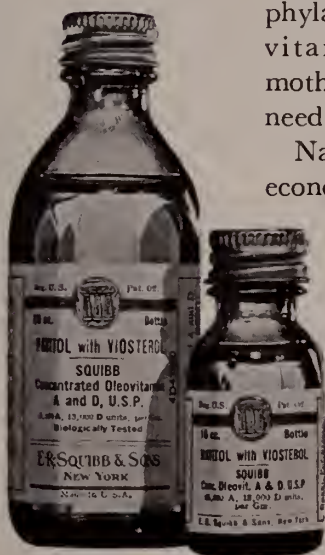
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1. Marriott, William McKim: "Infant Nutrition," revised by Jeans, Mosby, St. Louis, 3rd Edition, 1941.
2. Jeans, Philip C.: "The Feeding of Healthy Infants and Children," J.A.M.A., 120:913, 1942.

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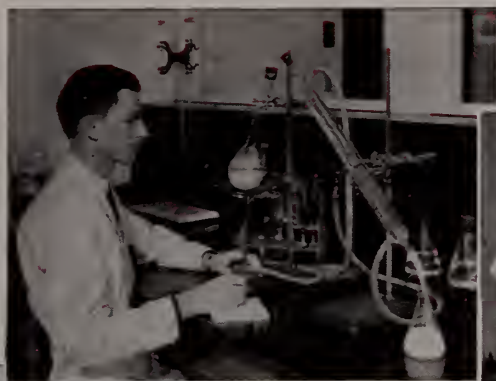
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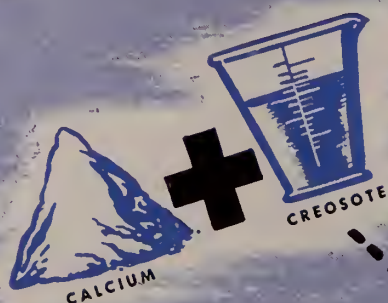
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<sup>1</sup> Fellows, E. J.: J. Pharm. & Exper. Ther., 60:178, 183, 1937.

<sup>2</sup> Stevens, M. E. et al: Canad. Med. Assn. J., 48:124, 1943.



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<sup>1</sup>H. E. Schmitz, Medical Clinics of  
North America 27:43, Jan. 1943



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Reprint available on cigarette research  
—Archives of Otolaryngology, March,  
1943, pp. 404-410. Camel Cigarettes,  
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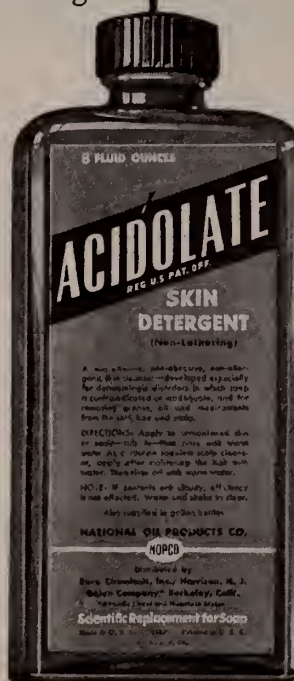
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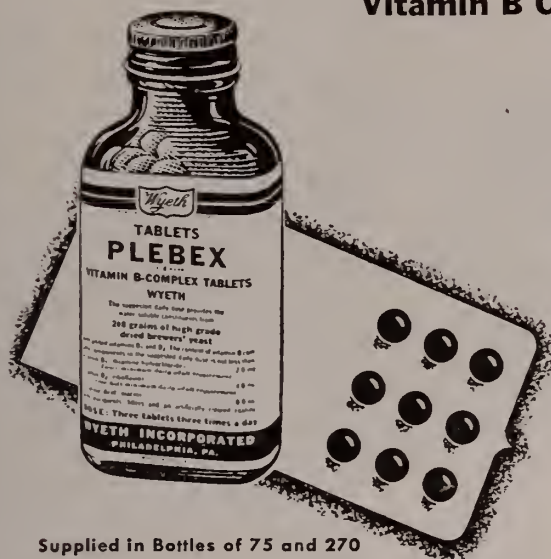
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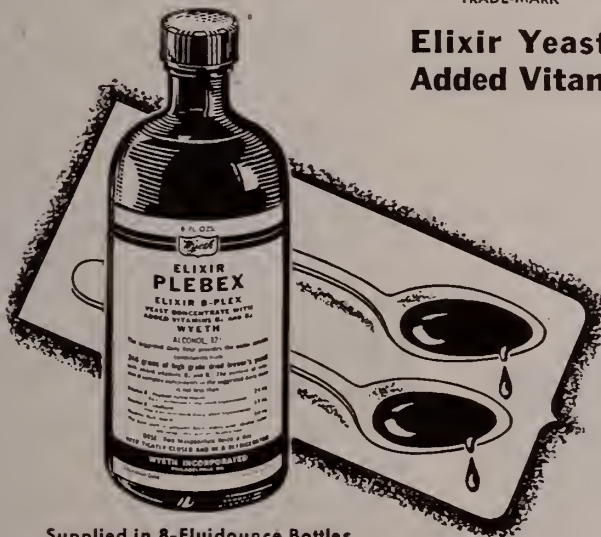
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For the usual concentration (5000 Oxford Units per cc.) inject 20 cc. of physiologic salt solution into the vial in the usual aseptic procedure.



Invert the vial and syringe (with needle in vial), and withdraw the amount of penicillin solution required for the first injection.



Store vial with remainder of solution in refrigerator. Solution is ready for subsequent injections during the next 24 hours.

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The physiologic salt solution is sterile and free from fever-producing pyrogens. Penicillin-C.S.C.—whether the sodium salt or the calcium salt—is bacteriologically and biologically assayed to be of stated potency, sterile, and free from all toxic substances, including pyrogens, as attested by the control number on the package.

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After the desired amount of the solution for the first injection has been withdrawn, the vial containing the remainder of the solution should be stored in the refrigerator. It is ready for the next injection—the desired amount then merely has to be withdrawn under proper sterile technic.

When released for unrestricted marketing, Penicillin-C.S.C. will be stocked throughout the United States by a large number of selected wholesalers. Any pharmacist thus will be able to fill professional orders promptly.

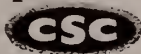
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\*Penicillin calcium, equal to penicillin sodium in therapeutic efficacy and nontoxicity, in recent investigations has been shown to be less hygroscopic than the sodium salt, and somewhat more stable. Both forms of the drug should be stored in the refrigerator, at a temperature not over 50° F. (10° C.).

*Therapeutic Reference Table . . . Penicillin-C.S.C.*

CONDITIONS IN WHICH PENICILLIN IS THE BEST THERAPEUTIC AGENT AVAILABLE

CONDITION	NOTE ON ADMINISTRATION*	DOSEAGE*	URATION AND COLLECTION PERIOD	CONTRAINDICATIONS
1. All streptococcal infections with and without bacteremia:	Intramuscular or intravenous	10,000 to 15,000 O.U. every 4 hours	7 days or less depending on response; and surgery as required	2. All hemolytic streptococcal infections
• Acute Otitis Media	Intramuscular or intravenous	250 to 500 O.U. per 4 hours		• Cellulitis
• Chronic Otitis Media	Intramuscular or intravenous	250 to 500 O.U. every 4 hours		• Mastoiditis
• Earaches, Soft Tissue Abscesses	Intramuscular or intravenous	250 to 500 O.U. per 4 hours	According to response; depending on surgery as required	• Rheumatoid with intracranial complications (meningitis, brain abscesses, etc.)
• Chronic Abscesses, Furuncles	Intramuscular or intravenous	10,000 to 15,000 O.U. every 4 hours		
		20,000 O.U. every 4 hours	7 days or less	
			According to response	

A page of the "Penicillin-C.S.C. Therapeutic Reference Table," showing recommended dosages and modes of administration; a copy is yours for the asking.



**SKILLFUL SURGERY—BUT**—how about postoperative "gas pains" and catheterization? Even the most skillful surgery can be followed by the post-operative complications of abdominal distention and urinary retention. The routine use of Prostigmin Methylsulfate\* 1:4000, however, provides a convenient and effective means of preventing these distressing and painful disorders, affording the patient a faster, more pleasant recovery . . . HOFFMANN-LA ROCHE, INC., NUTLEY 10, N. J.

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# The Illinois Medical Journal

October, 1944

VOL. 86, NO. 4

Official Journal of the Illinois State Medical Society

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## Editorials

### THE HEALTH OF THE ARMY

In a recent nation wide broadcast Brigadier General James S. Simmons, Chief, Preventive Medicine Service, U. S. Army, said that the disease death rate among American soldiers of World War II is the lowest ever recorded for the U. S. Army, and only one-twentieth as high as that of World War I. Although our troops have been exposed to practically every known disease, there have not been any great epidemics among American soldiers in this war. General Simmons stated that U. S. troops have experienced every kind of climate and have lived among primitive peoples of the tropical world but in spite of these handicaps, the sickness rate has been comparatively low and the diseases mild.

He said that this is not a matter of luck, but the result of the effective military preventive medicine program developed by the Surgeon General and carried out by the Medical Department of the Army. Thousands of physicians have been trained under medical military supervision in disease prevention. Many types of conditions rarely encountered in civilian practice are outlined, and these medical officers follow the soldiers and guard their welfare from the time they are inducted until they are ultimately discharged from service.

The extensive program of vaccination of soldiers has been responsible for the almost total elimination of many diseases which formerly

took a heavy toll in warfare. Although some cases of pneumonia, influenza and meningitis have been encountered, the death rate has been unusually low and relatively insignificant. Malaria has been well controlled with few deaths. The preventive medicine program in the Army has been highly important and stressed far more than ever before in time of war. With the plan of providing first aid on the battlefields, and the immediate transportation of the casualties by air to a base hospital, illness has been minimized and death rates lowered.

Major General Norman T. Kirk, Surgeon General, U. S. Army, recently returned from an inspection trip in the European theater. He was greatly impressed with the health of the Army, the care given to the casualties, and the extremely low mortality rates. Much credit was given to the Army Medical Services, all of which are under his direct supervision.

On August 21, the first shipment of whole blood from the United States to soldiers wounded in France was made by the U. S. Army Medical Department. Daily shipments have been made since that time. The first week 250 pints of whole blood, type "O", were sent; the second week, 500 pints, and it is stated that 750 pints daily will be shipped in the immediate future. Blood is prepared for shipment on the day it is drawn, and 21 hours after it leaves the United States, it is available for transfusion in France.

The blood is collected by the Red Cross for

the shipments in response to appeals from Major General Kirk as Surgeon General of the U. S. Army, and Rear Admiral Ross T. McIntyre as Surgeon General of the U. S. Navy.

It is a well known fact that although the giving of plasma is a life saving measure in shock and also following many types of injuries, it does not entirely replace the use of whole blood in cases with a lowered blood count. It is quite possible that within a relatively short time larger quantities of whole blood will be available for these daily shipments to the battlefields and to base hospitals along the fighting fronts. In order to make this plan effective and to properly preserve blood for transportation across the ocean, new developments in the preservation and refrigeration of whole blood have been worked out and placed in operation.

During the present war many changes have been made in the methods by which casualties receive early attention — such as relief of pain, treatment of shock, etc. Then, with the many additions to medical knowledge concerning immunization, therapy, surgical technique, etc., the American soldier today is receiving the best

type of medical care ever given to men at war.

It should be quite obvious to all that the medical profession has responded whole heartedly to all appeals of the government for medical officers in a quantity sufficient to render this type of care to service personnel. In most states today there are many communities which do not have a resident physician. Consequently there is a longer delay in these communities getting a doctor when one is needed.

The American people as a whole have come to the realization that the best of care must be given to service men and that civilian needs are secondary, even though equally essential. With so many young men in service from every community in the United States, and with all communities proud of their response to the call for men, those remaining at home are willing to assume additional sacrifices in order that this enviable health record may be maintained.

### THE 1944 POLIOMYELITIS EPIDEMIC

Information recently released shows that up to September 9th the total number of poliomyelitis cases for the country as a whole for the

## ILLINOIS STATE MEDICAL SOCIETY

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C. E. Wilkinson...8th District, Danville ....1946  
Andy Hall.....9th District, Mt. Vernon ..1945  
G. C. Otrich.....10th District, Belleville ...1945  
Ed. S. Hamilton...11th District, Kankakee ....1944  
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year was 10,959. Apparently the peak of the epidemic has been passed and the incidence of the disease is tapering off. It was stated by the National Foundation for Infantile Paralysis that the heaviest incidence of cases for the nation occurred in the week of September 2nd when 1,683 cases were reported to the U. S. Public Health Service.

It was stated in this release that this year's total for the first 36 weeks is 2,030 cases higher than for the same period in 1931, which to date is the second highest epidemic year. During the peak of the epidemic the National Foundation sent seven doctors, 50 physical therapists and many supplies as well as much money, out to care for the needs of the sufferers. The American Red Cross likewise cooperated in sending approximately 700 nurses to supplement local facilities in the epidemic areas. Many respirators were used, and it was stated that all 26 of the respirators owned by the National Foundation are still in use.

The War Production Board's Office of Civilian Requirements recently announced that hospitals of the United States have been assured enough supplies and equipment to treat every one of the cases which has been reported, and two and one-half times that number if they should develop. The rapid development of the epidemic in June in North Carolina, and in Kentucky, as well as many cases in other states, gave warning of the necessity for prompt action on the part of the Office of Civilian Requirements. The Office promptly put hospitals in touch with sources of equipment and supplies, and the manufacturers in touch with materials.

Many grants have been made by the National Foundation for virus research, after-effects research, education, epidemics, and for the Warm Springs Foundation and Tuskegee Institute. With the ever-increasing number of research workers devoting their time to the many considerations of poliomyelitis it seems quite logical to believe that eventually means will be developed which will permit the cure as well as the prevention of this dreaded disease.

There is an ever-growing belief that infection with poliomyelitis virus is usually by way of the alimentary tract. Yet many workers through research endeavors have shown that nasopharyngeal secretions are an important factor in the

spread of the causative virus. Faber and his associates at Stanford University, following extensive tests, believe that poliomyelitis as an air borne disease acquired by inhalation of contaminated air, deserves more consideration.

Following each epidemic more information is available, and it is hoped and believed that in the not too distant future more definite knowledge as to the mode of transmission as well as curative treatment will be developed.

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#### COST OF VITAMIN PREPARATIONS

During recent years, and increasing each year, we have seen the American people spending hundreds of millions of dollars for vitamins. Through the press, over the air and from others who take them, many people have suddenly felt the need of vitamins, believing that everyone, to be healthy, must supplement their daily diets with a liberal supply. One wonders how our forefathers who discovered, then developed this country, ever survived the hardships of their pioneer days without even a limited knowledge of vitamins, and without having them available for daily consumption.

Today vitamins can be purchased from drug, grocery or department stores as well as from most of the houses sending out the four pound catalogues. It is quite interesting to note the comments made by a number of the commercial announcers over the air in which several interesting statements are made. One of these, that the preparation meets with the standards as set by a group of doctors, and the other that anyone wanting advice concerning vitamins should consult his druggist. Rarely is the physician mentioned in this connection, yet he should be the one who can best determine the needs of his patients.

Several concerns formerly making various types of cold medicines and other proprietary remedies are now putting out a full line of vitamin preparations which one would believe, when listening to their talks, are superior to all other preparations of a similar nature.

An interesting article appeared in the September 2nd Journal of the American Medical Association giving data accumulated through the Council on Pharmacy and Chemistry on the comparative cost of vitamin mixtures. The daily vitamin requirements according to the recom-

recommendations of the National Research Council and those recognized by the Food and Drug Administration are presented for vitamins A, D, B<sub>1</sub>, B<sub>2</sub>, Niacin amide and C (ascorbic acid). A list of 25 brands of vitamin mixtures are presented showing the vitamin content of each, then the cost per package and the rate per 100 tablets or capsules.

With but a slight variation in vitamin content, the price per 100 varied from \$2.70 to \$8.00. This is indeed a most interesting table and we would urge physicians who are consulted by patients in reference to possible supplementation of diet with vitamins, to have same available so that both the vitamin content and the cost to the patient may be given proper consideration.

It is stated in the article that none of the preparations listed stands accepted by the Council for inclusion in New and Non-official Remedies, and that the advertising claims offered on behalf of some of the mixtures preclude any possibility of acceptance.

That there are some patients with a definite avitaminosis no physician will deny, but it still seems quite logical to believe that the average individual consuming a normal well balanced diet each day, is not actually in serious need of additional vitamins.

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#### AMERICAN MEDICAL ASSOCIATION WASHINGTON OFFICE

On September 1 the Washington office of the Council of Medical Service and Public Relations of the American Medical Association began its activities. With Dr. Joseph S. Lawrence in charge, the office is located at 1835 1st Street, N.W. Dr. Lawrence for many years has represented the Medical Society of the State of New York at Albany and is a highly capable man for this important position.

Requests for information or other assistance in relation to material available at the Washington office may be procured by writing to Dr. Lawrence at the above address. Information has been received to the effect that the Journal of the A.M.A. will report on the activities of the Washington office from time to time.

Physicians throughout the country will be pleased to receive this information and to learn that at last the Washington office is a reality

and that if it is conducted in accordance with the wishes of the profession at large, it will be a factor for much good in both giving legislators and others desiring it, reliable information on the progress of Medicine and what American Medicine really is, then it should be of inestimable value to the physician himself if he can get reliable information on what is going on at the Nation's capitol and especially concerning proposed legislative activities which may affect in some way or other, medical practice.

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#### PHOTOS OF MEMBERS FOR PERMANENT RECORDS

Members of the Illinois State Medical Society will soon receive a visit from Mr. Joseph Merante who has taken photographs of the Council, officers and several committees, and who is at present engaged in taking photographs of the individual members of the society.

There will be no charge to the physician for the photograph taken nor will there be any obligation to purchase portraits from Mr. Merante. It is hoped that the membership of this Society will cooperate in this endeavor so that in the near future photographs of the entire membership will be among the permanent records.

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#### SUBACUTE BACTERIAL ENDOCARDITIS TREATED WITH PENICILLIN

The effective treatment with penicillin of a case of subacute bacterial endocarditis (bacterial infection of the membrane lining of the heart) is reported in *The Journal of the American Medical Association* for September 23 by B. C. Collins, M.D., Memphis, Tenn. Within three days after treatment was started the temperature had dropped to normal.

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The large movements of population because of the expansion of defense industries, the inadequacy of housing facilities in many parts of the country, and the accelerated work tempo demanded in many industries lead health officials in this country to expect an increase in the mortality of tuberculosis such as has been experienced in Great Britain. Last year there was a slight rise in tuberculosis mortality in New York City but in 1942 this increase appears to have halted. The number of deaths due to tuberculosis, however, is still so large that control measures should in no way be abated.—Bull. New York City Dept. of Health, Feb., 1943.

# Correspondence

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## ILLINOIS DOCTOR IN SAIPAN INVASION

By Second Lieutenant Jim G. Lucas, formerly of the Tulsa Tribune, a Marine Corps Public Relations Officer.

Saipan, Marianas Islands — (delayed) —  
“This is the most beautiful thing I have ever seen.”

There was no beauty in what he actually saw. The beaches were lined with the broken bodies of men who had been whole when they awoke at dawn. There was blood and death amid the constant rumble of heavy artillery which the enemy poured down from the hills.

Beauty lay in the speed with which these damaged bodies were pulled back from the mounting fury of battle; the quiet, orderly precision with which heroic doctors and corpsmen, trained for peace but tempered in war, mocked the confusion and chaos which swirled about them; the unwavering demands of a creed which caused men to risk — and often to lose — their own lives to save that of a stranger.

Major credit for conduct of one of the most successful evacuation stations on Saipan's bloody beaches is given a pint-sized Indianan, Lieutenant Max Long, a Navy Doctor, of Marian, Ind., who four years ago graduated from his state University's school of medicine.

Assisted by Lieutenant (jg) Charles B. Mueller of 630 East First So. Street, Carlinville, Ill., Doctor Long came ashore four hours after the first Marines had come to Saipan, and remained on the beaches, frequently under heavy shellfire, to evacuate the wounded until hospitals could be set up ashore.

The story of Doctors Long and Mueller is a

story which can only be had by talking to others who saw them work.

Doctors and corpsmen swarmed over amphibian tractors as soon as they arrived from the front, administered blood plasma to two of the more seriously hurt, set splints for a Marine whose arm had been shattered, and had the tractor in the surf, headed back to the transports, five minutes later.

Many times Marines, caught by enemy shells deep in fighting territory, are on the operating table aboard a hospital ship three hours later.

More than 500 wounded men were taken off Saipan from Doctor Long's evacuation station alone in the first 24 hours of the battle; 1,050 in the first four days.

Doctors Long and Mueller were chosen by Naval Commander W. C. Baty, chief surgeon for the Fourth Marine Division, to man an evacuation station “until we capture enough soil to safely set up field hospitals.”

With them went 20 hospital corpsmen and ambulance drivers, at least one of whom paid with his life in performance of his duty.

Doctor Long set up his station near a road junction at the beach, ignoring the obvious danger that enemy guns undoubtedly would register upon any concentration of traffic. His reason! Here would be the best chance to collect wounded as they were brought back to the front, and to find them transportation out to sea.

Enemy shells peppered the area. A nearby aid station was hit, killing several wounded. Doctor Long “guesses we were lucky”. He escaped with a score of near misses.

Navy Ensign Frank Alderman describes a visit to Doctors Long and Mueller.

"Shells began coming close, and Doctor Long yelled at me! "Better get out, they're aiming at us! I assumed he'd go with me. I took his advice and made fast time down the beach. I looked back to see Doctor Long climbing aboard a tractor, directing his men in loading the wounded. As he stood there, shells were bursting in the water only a few yards in front."

Commander Baty said he frequently saw Doctor Long moving about on the beach, caring for the wounded, during the fury of an enemy shelling.

"Quite often," Commander Baty said, "he was the only man out of his foxhole."

Wounded Marines were usually given first aid treatment on the line, but the ride across the rough Saipan terrain had, in some cases, caused a relapse. Upon Doctor Long's decision depended, in many instances, life and death. Before the majority of them could be sent out across the reefs, he and his men gave them new injections of morphine for relief of pain, new sulfa dressings. Without it, they could not have survived.

Most punishing was the necessity of deciding which man had the best chance of survival, for sometimes there was not enough room in the tractors for all the wounded waiting on the beach. It was often Doctor Long's duty to order the removal of one man to make room for another. Those left behind were certain to die on the rough ride across the reefs — men with only a few minutes of life left in their bodies. In all, more than 30 Marines died on the beaches, despite efforts of the Doctors to save them.

Frequently, at night, wounded were brought in, and were kept at the evacuation station until the boats were brought in at dawn. It was impossible for the doctors to sleep. If lives were to be saved, constant vigilance was required.

In addition, enemy shelling killed and wounded scores of men in the area of the beach evacuation station, all of whom were treated on the spot. Some were so hopelessly wounded that evacuation was impossible.

Doctor Long said his ambulance drivers went so far beyond battalions aid stations at the front lines it was necessary to send in tanks and half-tracks to cover their withdrawal. One driver came back, horribly wounded, in the ambulance he had taken to the front.

Back to the beach they were brought, to funnel through the evacuation aid station, receive fresh treatment, and be sent back to sea.

#### WARREN F. DRAPER PROMOTED TO MAJOR GENERAL

Announcement has just been made of the promotion of Brig. Gen. Warren F. Draper to the rank of major general. General Draper, a graduate of Harvard Medical School, Boston, in 1910, began as assistant Surgeon, United States Public Health Service, in that year. During the first world war he was assigned to the Army and had charge of the extracantonment sanitation in the Norfolk, Va., area. Since then he has served as assistant surgeon general in charge of the states relation division of the Public Health Service, and for three years he served as state health officer of Virginia. In 1939 he was named assistant to the Surgeon General under Dr. Thomas Parran and later became deputy surgeon general. In the spring of this year he was assigned to duty with the Army in the grade of brigadier general at the request of Hon. Henry L. Stimson, Secretary of War. At present General Draper is chief of the public health branch of civil affairs in the European theater. This branch is responsible for the care of ill and injured civilians in the battle area, helps distribute medical supplies and gives advice on prevention and control of disease among civilians and animals. General Draper was a member of the House of Delegates of the American Medical Association from 1925 to 1943 inclusive.

#### URGE SPECIAL MICROSCOPIC TESTS BEFORE TREATING GONORRHEA WITH PENICILLIN

Dr. C. J. Van Slyke of the Public Health Service Venereal Disease Research Laboratory, Staten Island, N. Y., and Dr. S. Steinberg of the U. S. Marine Hospital, New York City, recently reported the possibility of overlooking syphilis symptoms in gonorrhea patients treated with penicillin in patients who have both diseases. This can be avoided, however, if special microscopic tests are made before penicillin is used, and if blood tests are made after penicillin treatment has been completed. The masking effect of penicillin on syphilis symptoms is due to the fact that the relatively small amounts of penicillin required to cure gonorrhea are sufficient to cause disappearance of the spirochete germs of syphilis from syphilis lesions, although not sufficient actually to cure syphilis. When serum from the lesions is examined under a special microscope after penicillin has been used, the spirochetes will not be seen, and the examining doctor may be misled to conclude that the patient was not infected with syphilis. Making the microscope examination before treatment with penicillin prevents this possible error. A blood test for syphilis some time after the treatment of gonorrhea has been completed is advisable, because blood tests do not always reveal very new syphilis infections immediately after they have been acquired.

# Medicine's Role in the War Effort

## REORGANIZE AIR SURGEON'S OFFICE

The War Department recently announced the partial reorganization of the Air Surgeon's office and reassignment of key officers of the Medical Service, Army Air Force. Brig. Gen. Charles R. Glenn, surgeon of the Army Air Force Training Command, was assigned deputy air surgeon on the staff of Major Gen. David N. W. Grant, the Air Surgeon, effective August 15. He succeeded Col. Walter S. Jensen, who has been assigned to an important post overseas. Other new assignments include those of Col. Henry C. Chenault, executive officer, who has been named director of professional services, Col. Oliver K. Niess, base surgeon and commanding officer of the Regional State Hospital, Mitchell Field, N. Y., who has been named director of administration, and Col. Richard L. Meiling, who will act as special assistant to the Air Surgeon.

The reorganization places the Director of Administration over the Operations, Personnel and Supply Divisions, while the Director of Professional Services will supervise the Professional, Aviation Medicine, Convalescent Training, Research and Statistics Division. Two divisions have received new designations. The Medical Services Division will be called the Professional Division, and the former Professional Division will be known as the Aviation Medicine Division.

The status of the division chiefs remains unchanged. The chiefs are Col. George L. Ball, Aviation Medicine Division; Col. Howard A. Rusk, Convalescent Training Division; Col. George F. Baier III, Operations Division; Col. E. L. Gann, Personnel Division; Col. William P. Holbrook, Professional Division; Col. Lloyd E. Griffis, Research Division; Col. Joseph Berkson, Statistics Division; Col. Gustave E. Ledsors, Supply Division, and Major William H. Perkins, Office Services.

## ☆ ☆ NAVAL HOSPITAL IN ENGLAND TREATS HUNDREDS OF WOUNDED FIRST TWO WEEKS OF INVASION

At a U. S. naval hospital in England, several hundred U. S. casualties from France were treated with the loss of only 1 man. Formerly a British hospital, this institution is a quarter of a mile long, is three

stories high with more than a hundred wards, operating rooms and laboratories, and is maintained in a state of constant readiness. Sixty outbuildings can be utilized in emergencies, almost doubling the normal capacity. The hospital maintains a staff of 50 doctors, 12 hospital corps officers serving as technicians, 98 trained navy nurses and 400 skilled hospital corpsmen. Another 180 men are engaged in maintenance. On D day the supply of medicine and drugs included 537,500 cc. of plasma, 398,500 cc. of other intravenous solutions, 794 gallons of alcohol, 50,000 tablets of sedatives of various types, 143,500 sulfonamide tablets and 71 pounds of sulfonamide powders, 50,300,000 units of penicillin, 299 pints of medicinal whisky, 4,958 bandages of all types, plus orthopedic equipment including 5,326 pounds of cotton, 2,500 pounds of plaster of paris, 100,000 yards of crinoline and 200 rolls of sheet wadding.

Each casualty on arrival at this hospital is examined separately by the chiefs of surgery, medicine and neuropsychiatry to determine as quickly as possible the preliminary treatment necessary and whether surgery is needed. After preliminary examinations and treatment each man is bathed, shaved, issued clean clothes and put into a clean, comfortable bed in rooms staffed twenty-four hours a day.

Complete arrangements for the transfer of this hospital from British to American hands began last fall, when Rear Admiral Luther Sheldon Jr., Medical Corps, U. S. N., assistant chief of the navy's Bureau of Medicine and Surgery, arrived in the United Kingdom. Early in the spring Capt. C. J. Brown, formerly of Philadelphia, brought his staff over to assume command. Capt. J. W. Miller, formerly of Washington, D. C., is executive officer. Other members of the medical corps on the staff are Capt. James M. Faulkner, Brookline, Mass., chief of medicine; Capt. A. H. Weiland, Coral Gables, Fla., chief of orthopedic surgery; Comdr. Henry W. Hudson, Waban, Mass., chief of surgery, and Comdr. Robert T. Baldridge, Providence, R. I., chief of the urology department.

☆ ☆

A girl who went out with a soldier realized ten minutes later that he was A.W.O.L.F.

## NAVY AWARDS AND COMMENDATIONS

## Captain Lockhart D. Arbuckle

Capt. Lockhart D. Arbuckle, now senior medical officer at the Naval Training Center, Great Lakes, Illinois, has been awarded the Legion of Merit "for exceptionally meritorious conduct in the performance of outstanding services to the government of the United States as division surgeon of a Marine division during the planning for and the operations against the Japanese on Bougainville, British Solomon Islands, from Sept. 10, 1943 to Jan. 4, 1944. During this period Captain Arbuckle rendered invaluable assistance to the commanding general in executing the operation under the most adverse conditions. When the preparations for the establishment of the beachhead were begun, owing to his highly efficient supervision of the medical facilities all troops entered the combat areas in excellent physical condition. As a result of his exceptional professional skill and constant attention to duty, medical services were administered to all the wounded, and despite the trying conditions arising from tropical climate, losses from sickness and battle wounds among the troops were held to a minimum. His superior knowledge and sound judgment contributed materially to the success of the campaign and were in keeping with the highest tradition of the United States Naval Service." Dr. Arbuckle graduated from the Medical College of Virginia, Richmond, in 1915 and has been in the service since May 28, 1917.

## Lieutenant William B. Neal Jr.

The Navy and Marine Corps Medal was awarded to Lieut. William B. Neal, formerly of Chicago, "for distinguishing himself by heroism while attached to the U. S. S. *Lansdale* during and following an attack by enemy aircraft off the coast of Algeria on the night of April 20, 1944. When the *Lansdale* was damaged and the ship subsequently sank, Lieutenant Neal was severely injured by the shock of the initial explosion but promptly commenced rendering first aid to other casualties of the disaster. With great skill and the utmost fortitude, he continued administering medical assistance until after the order had been given to abandon ship. When removed from the water by a rescue vessel he was completely exhausted but within a short time resumed his untiring efforts to revive survivors and care for the wounded for over thirty-six hours, at which time it became necessary to hospitalize him. He undoubtedly contributed to the saving of several lives. The extraordinary courage, selflessness and devotion to duty displayed by Lieutenant Neal were in keeping with the highest traditions of the Naval Service." Dr. Neal graduated from the University of Chicago School of Medicine in 1941 and entered the service in August 1943.

☆ ☆

**BUY AN EXTRA BOND!**

GEN. DWIGHT D. EISENHOWER PAYS  
TRIBUTE TO ARMY NURSES

A tribute to the work Army nurses are doing in the European theater was recently expressed by Gen. Dwight D. Eisenhower in a letter to Mr. Edwin B. Wilson, editor of the *Brooklyn Eagle*. General Eisenhower had been informed by Mr. Wilson of the campaign being undertaken by the *Brooklyn Eagle* and by the Brooklyn chapter of the Red Cross to recruit nurses for the armed forces. Expressing his appreciation of the nurses' work, General Eisenhower wrote "Nothing stops them in their determination to see that our troops receive the best attention humanly possible. . . . We need nurses, more nurses. The work that you and your group — and other similar groups throughout the United States — are doing must be successful."

☆ ☆

SIXTY-NINE ARMY NURSES HAVE  
DIED IN LINE OF DUTY

The War Department recently announced that of approximately 40,000 members of the Army Nurse Corps 69 have lost their lives in line of duty since Pearl Harbor, 24 have been reported as wounded and 66 are prisoners of war. Six officers of the Army Nurse Corps have died as a direct result of enemy action. Other deaths have been due to vehicle accidents, airplane crashes and disease.

☆ ☆

NURSES DECORATED FOR GALLANTRY  
UNDER FIRE

Twelve officers of the Army Nurse Corps have been awarded the Bronze Star for heroic service in Italy, the War Department recently announced. This brings to 17 the number of American nurses who have been decorated for gallantry under fire. One Bronze Star and four Silver Star awards were made earlier.

☆ ☆

CHIEF ARMY NURSE OF SIXTH  
CORPS AREA RETIRES

Lieut. Col. Pearl C. Fischer recently retired as chief of army nurses for the Sixth Service Command and was honored at a dinner at the Gardiner General Hospital, Chicago, August 8. Colonel Fischer was the first woman with that rank to serve with the Sixth Service Command. She will be succeeded by Lieut. Col. Martha Jane Clement, director of army nurses in the Southwest Pacific Area.

☆ ☆

## CHICAGO NURSE RECEIVES AIR MEDAL

Lieut. Helen F. Lyon of Chicago, a member of the first overseas flight nurse team, who went to the Aleutian theater last year to evacuate men wounded in the Attu campaign, has recently been awarded the Air Medal. With Lieutenant Lyon's unit when it arrived in the Aleutians was 2d Lieut. Ruth M. Gardiner, who was the first air evacuation nurse to lose her life in this war and after whom the Gardiner General Hospital was named.

### U. S. HOSPITALS ASSURED ENOUGH SUPPLIES AND EQUIPMENT FOR TREATMENT OF POLIOMYELITIS

The War Production Board's Office of Civilian Requirements recently announced that hospitals of the United States have been assured enough supplies and equipment to treat every one of the approximately 9,500 cases of poliomyelitis reported in the current epidemic and two and one-half times that number if they should develop. Warned in June by the rapid development of the epidemic in North Carolina and Kentucky and the occurrence of 480 cases nationally, the OCR Chemicals, Drugs and Health Supplies Division officials contacted the National Institute of Health and the National Foundation for Infantile Paralysis to determine what equipment would be needed and what was available. It was revealed that 150,000 yards of wool, 500,000 yards of muslin binder, 150,000 yards of oil silk, 100,000 blankets and 25,000 dozen safety pins would be needed, together with hot pack units. Three days later the first hot pack unit thus made available was shipped by the maker to a hospital in Washington D. C. Three more were sent to North Carolina, 15 went to Buffalo, and other orders were being filed.

Throughout the summer OCR acted as a clearing house, putting hospitals in touch with sources of equipment and supplies and manufacturers in touch with materials. Contacts were made for inquiring parties and emergency ratings issued when necessary. OCR officials believed there would be little difficulty in meeting future emergency demands. Cooler weather is expected to help stop the spread of the disease.



### TWO THIRDS OF ARMY WOUNDED RETURNED TO DUTY

According to a recent release, fully 96 per cent of all men wounded on battlefields recover, and of these about two thirds return to duty. When the convalescent period is reached the Army's new intensive program of reconditioning begins. This includes planned, progressive physical exercise to speed the recovery of strength and stamina. Occupational therapy encourages normal habits, and educational therapy mental advancement. Following the reconditioning program the men who have recovered but who do not meet the Army's physical standards for general service may remain in the Army in limited service status or in some cases may return to civilian life. Twenty-three per cent of those discharged from hospitals with serious physical limitations, and who were given the option of discharge from the Army, elected to remain in the military service, according to War Department figures for the period from June 25 to July 25. Continued hospital care as required will be available to casualties returned to civilian life, together with opportunity for vocational rehabilitation or academic advancement through study in schools and colleges, depending on circumstances and personal choice.

### MEDICAL COMPANY COMMENDED FOR MERITORIOUS SERVICE

Company C, Third Medical Battalion, attached to the Third Marine Division, Reinforced, in the capture of a beachhead on Bougainville Island, has been commended by Major Gen. Roy S. Geiger, U. S. Marine Corps, commanding general of the First Marine Amphibious Corps. The citation reads "During the military operations commencing Nov. 1, 1943, which resulted in the capture by the Third Marine Division, Reinforced, of a beachhead on Bougainville Island, British Solomon Islands, Company C, Third Medical Battalion, made conspicuous and valuable contributions to the success of our arms. At the battles of Cape Torokina, Koromokina Lagoon, the Coconut Grove, Piva, Piva Forks and Fry's Nose, as well as during enemy bombing attacks and combat operations of a minor nature, the personnel of the company brought aid to the wounded under the most adverse conditions of weather and jungle terrain, cheerfully enduring enemy fire throughout each of these actions and frequently risking their own lives in order to evacuate and administer medical assistance to the injured during the heat of combat. The officers and men of the company acquitted themselves gallantly, winning the admiration of the combat troops and saving the lives of hundreds of the wounded."

The commanding officer of the company was Lieut. Comdr. Rodney Robert Gleysteen. Dr. Glysteen graduated from the State University of Iowa College of Medicine, Iowa City, in 1938 and entered the service Aug. 15, 1941.

Among other Medical Corps Officers with this company was Lieut. Leo John Koscinski, Chicago, who graduated from Northwestern University School of Medicine, Chicago, in 1941 and entered the service April 13, 1942.



### WHOLE BLOOD SHIPPED TO FRANCE

The first shipment of whole blood from the United States to soldiers wounded in France was made by the U. S. Army Medical Department by an army plane, August 21. Daily shipments have been made since, 250 pints a day the first week and 500 pints a day the second week; 750 pints a day will be shipped soon. Type O blood is being collected by the Red Cross for the shipments in response to appeals from Major Gen. Norman T. Kirk, Surgeon General of the Army, and Rear Admiral Ross T. McIntyre, Surgeon General of the Navy. The whole blood is prepared for shipment on the day it is drawn, and twenty-one hours after it leaves the United States it is available for transfusion in France. Brig. Gen. F. W. Rankin and Col. B. N. Carter of the Surgical Consultant Division with Lieut. Col. Douglas B. Kendrick, consultant to the Surgeon General on transfusions and plasma, developed the program for the Army Medical Department, and new developments in the preservation and refrigeration of whole blood were worked out to make the plan effective.

# Original Articles

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## TRANSURETHRAL DRAINAGE OF THE SEMINAL VESICLES IN SEMINAL VESICULITIS

ROBERT H. HERBST, M.D.

AND

JAMES W. MERRICKS, M.D.

CHICAGO

Three years ago we reported before this Society our experiences, both clinical and experimental, dealing with the diagnosis and treatment of seminal vesiculitis. Our principal points at that time emphasized the association of obstructions in the distal portion of the seminal tract, namely the ejaculatory ducts, with persistent infection of the prostate, seminal vesicle and epididymis.

In this paper we will consider involvement of the seminal vesicles in association with the following four conditions:

1. Obstructive vesiculitis
2. Prostatic calculi
3. Hemospermia
4. Obstructive sterility.

Our clinical experience now consists of the transurethral dilatation and catheterization of approximately seven hundred and thirty ejaculatory ducts. Discussion of these cases can best be done by following the outline above.

1. *Obstructive vesiculitis* results from the obstruction of ejaculatory ducts chiefly by stricture, which is the aftermath of inflammation. More than half of these are caused by gonorrhea. A few ducts are distorted in their terminal portions by congenital deformities, making it most difficult to catheterize them.

From Rush Medical College of University of Illinois and Presbyterian Hospital, Chicago

Read before the Annual Meeting of Illinois State Medical Society, May 1943

This group contains the largest number of cases. Prostatitis is frequently associated with vesiculitis. On the average, these patients had been treated by prostatic massage, urethral sounds, irrigations and other procedures for more than three years. Some of them have been followed for seven to eight years.

These patients complained chiefly of pains about the genitals and perineum and repeated attacks of epididymitis which were persistently more frequent on the side more severely involved. Backache, joint pains, malaise with chills and fever were worse when tension of infected vesicular contents reached its height. Pain on ejaculation with hemospermia was noted not infrequently.

The mechanism by which repeated attacks of epididymitis occur is interesting to note. Massage of an obstructed seminal vesicle full of infected material, the so-called "male pus tube" of Belfield, merely churns up the contents, often forcing the infection back up the vas deferens, producing epididymitis. Straining with heavy lifting compresses the vesicles between the abdominal contents above and the fixed pelvic floor below, forcing the infected material back up the vas to the epididymis. Many times the patient is correct when he states his scrotal swelling followed a "strain".

The relief of obstructive vesiculitis is best obtained by transurethral dilatation of the obstructed ejaculatory ducts. By this means the fundamental surgical principle of drainage is obtained. Adequate drainage must be maintained by repeated dilatations depending upon the condition of the patient. Vasotomy offers nothing in the way of removing these obstructions. Fuller of New York at the turn of the

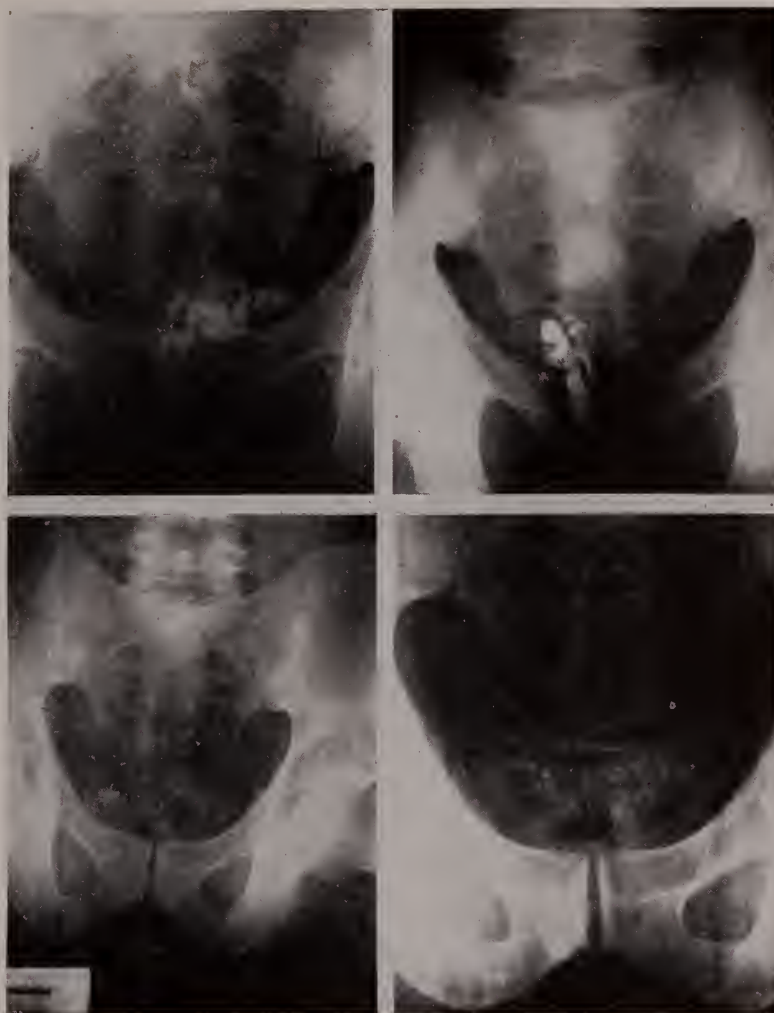


Figure 1. Case 1. (Top left). Abscess proximal portion left vesicle. Figure 2. Case 1. (Top right). Abscess of right vesicle. Figure 3. Case 1 (Lower left). Vesiculogram two years later, practically normal. Figure 4. Case 1. (Lower right). Vesiculograms four years later, slight dilatation tip of right vesicle.

century and Squier somewhat later treated these infected organs by perineal section, relying upon temporary open drainage of the incised vesicle to produce a cure.

Evidence that better methods were long ago sought is found in attempts, especially by Young of Baltimore, to devise instruments to penetrate the ejaculatory ducts endoscopically. The Wappler instrument, developed by McCarthy, has proven to be most satisfactory to us. This tiny machine with terminal wheels directs bougies or open end catheters of F3 or 4 calibre downward, medially and backward in the usual direction of the distal portion of the ejaculatory duct, which flares out in a lateral direction in the terminal

one and a half or two mm. of its course.

Vesiculograms are routinely done because they are as indispensable as are pyelograms in the study of renal disease. Visualization of the vesicles is accomplished by the retrograde injection of full strength diodrast through the inlying catheter, one side at a time.

Caudal anesthesia, using 25-30 cc. of freshly prepared 1% novocaine is preferred for two reasons. Adequate relaxation must be obtained to permit freedom of manipulation about the veru montanum, where the ejaculatory ducts terminate. Normally the duct openings on the veru are apparently in a state of tonic contraction produced by the action of Bell's muscles



Figure 5. Case 2. Huge vesicles, result of obstruction. Bilateral vasectomy elsewhere.

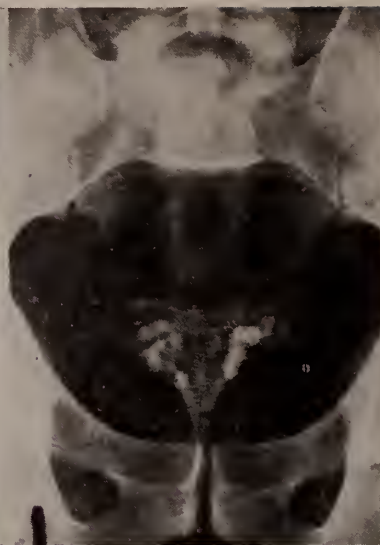


Figure 6. Case 2. Nearly normal vesicles eight months later.



Figure 7. Case 3. Normal left vesicle.



Figure 8. Cast 3. Suppurative vesiculitis, right; 15 attacks right epididymitis. No epididymitis since dilatation of right duct.

which swing down from each ureter, meeting below the veru, thereby exerting enough pull to keep the ejaculatory duct orifices closed except during ejaculation. We believe less toxic reaction results with caudal than spinal. General anesthesia must be very deep for this purpose, hence is not accepted ordinarily.

Failures were less than one percent and usually resulted from extreme distortion of the posterior urethra, either acquired or congenital.

Dilatation is often started by using French 1 or 2 bougies. Only one or two dilatations were needed in some, many in others. At times the stenosing action of the infection extended into the seminal vesicle, resulting in partial obliteration of the tubules themselves, producing, in effect, an "auto-vesiculectomy".

The following cases illustrate severe obstructive vesiculitis from stricture of the ejaculatory ducts, followed by us for a minimum of four years.



Figure 9. Case 4. Suppurative vesiculitis. Responded well to drainage.

Case 1. J. G., age 42. Gonorrhea years before, repeated bilateral epididymitis with 7 years treatment elsewhere. Bilateral abscesses of vesicles present. Excellent result in nine months, well four years later. Figures 1, 2, 3, 4.

Case 2. H. K., age 44. Bilateral partial vasectomy elsewhere several years previously for recurrent epididymitis and "painful testicles" with perineal pain, which was relieved by dilatation of ejaculatory ducts. Figures 5 and 6, 2 years later.

Case 3. J. L., age 39. Massaged elsewhere for three years. Fifteen attacks of epididymitis on *right side*.

No attacks of epididymitis since dilatation and drainage of right duct, in past five years. Figures 7 and 8.

Case 4. C. F., age 24. Gonorrhea several years previously. Perineal pain on ejaculation, hemospermia and persistent discharge, from large infected vesicles. No recurrence of symptoms in three years. Figures 9 and 10.

Case 5. M. V., age 54. Repeated perirectal abscesses, hemospermia. No recurrences of abscesses or hemospermia after dilatation of ducts and drainage of huge infected vesicles in four years. Figures 11 and 12.

2. *Prostatic calculi* have been found in approximately one-half of the prostate glands removed at routine post-mortem examinations in the Presbyterian Hospital and rendered transparent by us. These specimens were cleared by our modified Spalteholz technique. Undoubtedly these stones are associated with faulty drainage of prostatic ducts and possibly with altered tissue metabolism. Some stones are tiny and wide spread in the gland, others are large and collected in nests. Nearly all are phosphatic in nature, some are oxalate.

So-called chronic prostatitis is often associated with these stones, which are rarely found in the vesicles. Groups of these stones located near the ejaculatory ducts may cause extreme distortion of the ducts by pressure, contributing further to infection in these organs from faulty drainage.

Simple dilatation of the ejaculatory ducts may provide adequate drainage of the infected



Figure 10. Case 5. Huge infected vesicles. Ischiorectal abscesses. Hemospermia.



Figure 11. Case 5. Right vesicle better filled, several weeks later. No further rectal abscesses.



Figure 12. Case 6. Huge infected vesicles. Backache. No prostatic secretion. Prostatic calculi.



Figure 13. Case 6. Left vesicle much smaller 6 months later.



Figure 14. Case 7. Prostatic stones, causing pressure on ejaculatory ducts.



Figure 15. Case 8. Huge blood-filled vesicle, hemospermia. Recovery with instillation of 2% silver nitrate solution in vesicles.

vesicles, but at times transurethral prostatotomy with removal of the stones may be required to relieve the pressure on the ducts. The following two instances illustrate the two procedures.

Case 6. C. F., age 51. Severe low backache and perineal discomfort for several years. Massaged nine months in our office, never obtaining much secretion. Following dilatation of ducts, not removal of stones, has been well four years. Figures 13 and 14.

Case 7. S. M., age 67. Slow stream, perineal discomfort, pain in groins for several years. Transurethral prostatotomy with removal of stones brought relief of symptoms. Figure 15.

3. *Hemospermia* may be associated with tuberculous and malignant lesions at the bladder neck as well as with polyps, calculi and benign prostatic hyperplasia. Hemospermia may occur with no demonstrable cause. A huge vesicle filled with blood may respond well to empirical



Figure 16. Case 9. Large suppurative right vesicle. Left obstructed. Hemospermia.



Figure 17. Case 9. Eleven months later. Partial filling of obliterated, distorted left vesicle, right vesicle somewhat smaller.

treatment with nitrate of silver instillations into the vesicles as in the following:

Case 8. R. S., age 29. Following severe sexual irritation, recurrent large amounts of dark ejaculate, completely relieved four years now by several instillations of silver nitrate into vesicles. Figure 16.

Hemospermia may also occur with obstructive vesiculitis as a primary or minor symptom. See cases 4 and 5.

Case 9. G. P., age 54. Treatment elsewhere ten years for prostatitis and hemospermia. Severe vesiculitis responded to dilatation of ejaculatory ducts. Hemospermia relieved. Figures 17 and 18.

4. *Obstructive sterility* results more frequently from obstruction in the terminal portion of the seminal system than the proximal, near the epididymis. In the days when one of us (R. H. H.) probed many vasa deferentia as part of vasotomy, very rarely was stricture of the upper vas encountered. One should not neglect investigation of the ejaculatory ducts if evidence of bladder neck pathology is suspected.

Case 10. A. L., age 26. Pain on ejaculation, hemospermia, stones in prostate, sterility. Stones removed by transurethral prostatotomy. Ejaculatory ducts, which were extremely distorted and difficult to catheterize, straightened out. Wife conceived six months later. Figure 19.

#### CONCLUSIONS

When routine adequate treatment by massage and instillations, with removal of distant foci of infection, fail to relieve infections involving the prostate and seminal vesicles, often satisfactory results may be obtained by providing



Figure 18. Case 10. Stones in prostate; infected, distorted ducts and vesicles. Relieved after stones removed, impregnated wife 6 months later.

adequate drainage of obstructed infected seminal vesicles. Transurethral dilatation of the ejaculatory ducts alone, or at times combined with transurethral prostatotomy for removal of prostatic calculi are the methods of choice. By these procedures the fundamental surgical principle of drainage of these organs is best obtained.

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## THE BEDSIDE DIAGNOSIS OF PARENCHYMATOUS LIVER DISEASE

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I shall stress for you as briefly as I can what I consider to be the most important features in the bedside diagnosis of parenchymatous jaundice.

What do we mean by this term? We mean a jaundice due to diffuse liver injury. In recent years relatively too much emphasis has been placed on the laboratory diagnosis of jaundice. It is probable that more than 50 per cent of all cases of jaundice can be diagnosed on the basis of a careful history and a careful physical examination. Laboratory tests are essential in something less than 50 per cent of the cases, admitting that there are some instances that defy all methods of diagnosis.

I cannot take the time to discuss all of the many facets of the diagnosis of jaundice. First, a word about pain. We are all aware that a history of biliary colic is very important in the diagnosis of calculous jaundice. It should be noted, however, that colic may occur with hepatitis or with cirrhosis. We have seen examples of this sort of "pseudo-gallstone" colic in which the pain was entirely similar to that of common duct stone. The colic in these instances is difficult to explain; it may be due to hyperirritability of the sphincter of Oddi.

Chills are very important in the differential diagnosis of jaundice. When chills are intermittent and recurrent they nearly always indicate a common duct calculus, less often a stricture. In catarrhal jaundice (hepatitis) chills may occur early in the course of the disease, often before the onset of jaundice.

The history of a previous attack of pain and jaundice is always important and always suggests the presence of common duct stones. One should keep in mind, however, that the association of cancer of the biliary tract, more particularly of the ducts and gallbladder, is frequently associated with gallstones. The fact that the patient has had previous episodes of colic does not prove that the present jaundice is on the basis of

stones. It may be due to cancer of the gallbladder or common bile duct in a patient with cholelithiasis.

I should like to speak briefly about pruritis. This has often been said to be a sign of extra-hepatic biliary obstruction and that one can interpret it accurately in differential diagnosis. I have not found this to be true. We see pruritis often enough in cases of hepatitis to make it a sign of little practical value. If the patient has intense persistent jaundice, however, and at the same time has no pruritis, hepatitis or cirrhosis is more likely to the underlying disease.

The history of ingestion of drugs is of great importance, especially cinchophen and arsenic. One must take this into account in every patient with jaundice. I have in mind a patient who had been receiving antiluetic arspenamine for nearly two years, without apparent difficulty. The patient had not made her husband aware of this. Subsequently when she complained of mild pain and stiffness in her fingers, he sent her to his own, another physician, who prescribed sulfanilamide. After a few days, the patient became jaundiced and later comatose. Death resulted from subacute atrophy of the liver. This was as perfect an example as I have ever seen of the combined effect of two drugs, both of which may damage the liver. It might be argued that the sulfanilamide alone was responsible, but there can be no doubt that damage from sulfanilamide is much more likely to result if the liver has already been injured by other toxins or poisons. In any case of jaundice with associated arthritis, one must always ask about the ingestion of drugs, especially cinchophen, since this substance at times causes severe jaundice which may terminate fatally or go on to development of cirrhosis and ascites.

As to physical examination, emaciation is important because it usually indicates a neoplasm. With cirrhosis of the liver, however, there may also be a marked emaciation. This is often noted particularly in the upper extremities.

The size of the liver is of considerable importance in the bedside diagnosis of jaundice. If the liver is large and smooth one can say very little about it from a diagnostic standpoint, because biliary engorgement may be due either to a gall stone or a cancer. The liver is often enlarged in cases of hepatitis. If, in the

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presence of jaundice, the liver cannot be palpated and if liver dulness is absent on percussion, it is likely that the liver is small and this suggests either subacute atrophy or cirrhosis of the liver. In some instances of rapid liver atrophy, the liver may be noted to decrease in size from day to day. Obvious nodules palpated on the liver nearly always indicate cancer.

I should like now to emphasize the palpable, smooth, non-tender gall bladder in the jaundiced patient. The chances are great that there is a cancer of the extrahepatic biliary tract, most often in the head of the pancreas. This is a sign of extreme importance. We have not encountered it in other conditions, with but one exception, i. e., chronic fibrous pancreatitis.

The presence of an enlarged spleen usually indicates a parenchymatous jaundice, either hepatitis or cirrhosis. One must also think of familial hemolytic jaundice, with associated gall stones and common duct obstruction. Calculous jaundice alone may rarely be associated with splenic enlargement if the obstruction is sufficiently long standing to result in a biliary or obstructive cirrhosis. Such patients may even exhibit ascites or hematemesis due to esophageal varices. An enlarged spleen in most instances, however, can be interpreted in terms of hepatitis or primary cirrhosis.

I should like to stress particularly the "foetor hepaticus." This is a physical finding that has not been generally appreciated. This odor, also known as the "amine odor" is noted especially in patients with acute yellow atrophy. It is a musty, slightly sweetish, very pervading odor which may be intense and fill the room or ward, or it may be noticed only when one is close to the patient. The "foetor hepaticus" may be regarded as a sign of hepatic insufficiency, more particularly of hepatic coma. We first regarded it as a fatal prognostic sign, but it may be noted in milder degree in patients with hepatitis or other liver damage from which there is ultimate recovery. We have noticed it in patients with jaundice due to sulfanilamide, and in jaundice of other cause which lasted for a few days to a few weeks. We have noticed it in cases of cirrhosis of the liver with or without coma.

Ascites may mean cirrhosis, but it may also mean carcinomatosis. Apart from the laboratory studies of the ascitic fluid, the most valuable aid,

of course, is the presence of collateral circulation over the abdomen.

Pigmentation of the skin is often suggestive in the diagnosis of cirrhosis, especially pigmentation in the creases of the palms of the hands, the axillae, the axillary folds, and over the back. The pigment is melanin.

In general, patients with cirrhosis have relatively little hair. It is unusual to observe cirrhosis in patients who are quite hirsute, but as illustrated below, this may occur rarely.

Biliverdin (green) jaundice is much more often seen in patients with cancer. Exceptions are noted in occasional cases of long standing hepatitis.

Spider nevi are most often observed in patients with cirrhosis of the liver. While not pathognomonic, they should always strongly suggest this disease. They may appear at a distance simply as tiny red papules. As one looks more closely, a light red center is seen with little vessels running out in various directions. It is of interest that these spider nevi (arterial) occur only in areas of the body drained by the superior vena cava. I have never seen them in the lower portion of the body. They may appear while the patient is under observation in the hospital. One may see them come out on the chest, back of the neck, shoulders, or hands, and when they do, that patient is likely to have diffuse damage of the liver, most often cirrhosis.

In discussing bedside diagnosis, most laboratory methods are obviously excluded from consideration. The urine urobilinogen test\* however, is easily carried out at the bedside and may yield decisive information. If it is positive, the jaundice is hardly ever due to cancer of the biliary tract. If it is strongly positive, parenchymatous jaundice is more than likely, although the possibility of liver damage secondary to extrahepatic biliary obstruction must be considered, as for example, a common duct stone with cholangitis. Also, of course, the urine urobilinogen test may be intense during the crises of hemolytic jaundice.

\*5 cc. of freshly voided urine cooled to room temperature.

5 cc. of modified Ehrlich's reagent:

0.7 gm. pure p-dimethylaminobenzaldehyde

150 cc. concentrated (37%) HCl.

100 cc. distilled H<sub>2</sub>O

10 cc. saturated aqueous solution of sodium acetate.

Illustrative cases with the more important bedside diagnostic features italicized, are given below:

1. ♂, 69. Increasing jaundice for 3 weeks. Lower abdominal pain and some diarrhœa at the outset. Dark urine and light stools. Admitting diagnosis: Cancer of the head of the pancreas. *No pruritis. Enlarged liver. Gall bladder not palpable. Spleen palpable. Outspoken foetor hepaticus. Marked urobilinogenuria.* Diagnosis: Hepatitis. With a high protein diet, plenty of glucose, and complete bed rest, this patient recovered completely.
2. ♂, 55. 10-8-41. Moderate *alcoholism* many years. *Deficient diet* (500 calories) for weight reducing purposes, 4 months. Continued alcohol. Jaundice appeared August 1, present 10 days, *disappeared.* Reappeared August 20, persisted. Anorexia. Deep jaundice. Marked pruritis. Marked hirsutism of arms and chest. *Liver not palpable — decreased dullness.*

Mild *confusion* and *euphoria* with tendency to *somnolence.* No foetor.

- 10-13-41. Definite *ascites.* Outspoken *foetor hepaticus.*
- 10-15-41. Extreme foetor. Onset of *coma.*
- 10-17-41. Coma has deepened; foetor not so marked. Exitus. Necropsy: 900 gm. liver, diffuse portal cirrhosis.

## PHARYNGO-ESOPHAGEAL DIVERTICULA

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According to the texts, the esophagus is a nearly straight membranous, muscular tube, but there are many exceptions, particularly because of pathological changes in the neck and chest that tend to distort the passage of the esophagus. We are not concerned with the defects of the esophagus that occur below the cervical region, but with the definite development of the diverticulum at the junction of the pharynx and esophagus, and its treatment.

*Relation and Structure:*— The pharynx extends from the base of the skull to the 6th cervical vertebra, where at the lower border of the cricoid cartilage, it becomes the esophagus. At this same level, the larynx is continuous with the trachea. The posterior wall of the trachea

is applied throughout its entire length to the anterior wall of the esophagus, but between the two, there is enough areolar tissue to allow each to dilate and contract independently.

The cervical part of the esophagus is separated from the vertebral column by the Longus Cervicis muscles and prevertebral fascia. Lying over the trachea is the thyroid gland, which passes laterally and backward. The recurrent laryngeal nerve ascends in the angle between the trachea and esophagus and behind the thyroid gland, and the large vessels lie lateral to the esophagus.

Barnhill states that the structures of the neck are enclosed in 3 separate compartments, each enclosed by a deep layer of cervical fascia, all divisions lying against each other, yet completely separated from and adjoined to each other by loose connective tissue. In one compartment, the carotid sheath, are the large blood vessels and vagus nerves; the muscles, individually or in groups fill the muscular compartments, while still another contains the trachea, thyroid gland, and esophagus. This latter group, he calls the cervical viscera. There is no visible connection between the structures of any one group with any of the others. The loose connective tissue which separates the various fascial bundles creates a channel that reaches from the surface deeply into the neck, and establishes a natural safe and easy pathway along which a majority of all surgical affections of the neck may be reached.

The esophagus has an outer muscular coat of two layers, and an inner glandular coat covered with permanent epithelium. A connective tissue layer joins the two. In place of true serosa, the outer covering of the esophagus consists also of connective tissue, which is continuous with the surrounding structures. The outer layer of the muscular part consists of longitudinal fibers, and the inner layer of circular fibers. The longitudinal fibers are attached to the back of the cricoid cartilage. The inner layer of circular muscular fibers is a continuation downward of the inferior constrictor muscle. The upper end of the esophagus is the lower end of the pharynx, so that the voluntary muscular fibers predominate. The longitudinal fibers which form the external of the two muscular layers of the esophageal wall split posteriorly, turn right and

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left, and mark off a V-shaped space at the beginning of the esophagus. After separating, the two bundles of fibers sweep forward and upward around the esophagus laterally to gain an attachment anteriorly to the vertical ridge in the center of the seal of the cricoid cartilage. This leaves the circular fibers of the upper posterior part of the esophageal wall unsupported by longitudinal fibers. The V-shaped gap is about an inch long and directly behind the cricoid cartilage. This is the weak triangle of the pharyngo-esophageal wall, and it is through this spot that diverticula of the pharyngo-esophagus may herniate.



Figure 1. Diagrammatic illustration of posterior aspect of the junction of the pharynx and the esophagus. The two points marked x represent the two levels at which pulsion diverticula herniate through — the upper x is in the lowest fibers of the inferior constrictor muscle, the lower x is at the pharyngeal dimple, the defect in the posterior wall where the cricopharyngeal muscles diverge from the lowest fibers of the inferior constrictor muscle.

*Classification:* Ludlow first described an esophageal diverticulum in 1769, Bell in 1816, Rokitsansky in 1840, and Zenker and Ziemssen in 1873 made further advances in the study of these pouches. The pharyngo-esophageal diverticulum is called a Zenker diverticulum in many texts.

Moynihan states there is no such thing as a pharyngo-esophageal diverticulum, but these should be called pharyngeal diverticula or esophageal diverticula. He also states that Zenker's name should not be attached to these cases inasmuch as Ludlow first described them, and his

specimen is preserved in the Hunterian Museum in Glasgow.

Raven classified these pouches as pharyngeal and esophageal.

A. Pouches of pharynx.

B. Pouches of esophagus, upper and lower.

(These will not be under discussion in this paper.)

A. Pharynx-

I. Congenital. II. Acquired.

I. Congenital.

Lateral pouches are derived from third and fourth embryonic endodermal pouches. The third endodermal pouch opens at the bottom of the pyriform sinus.

Those derived from the fourth pouch are uncommon.

II. Acquired.

A. Anterior pulsion.

B. Posterior pulsion.

A. Anterior Pulsion type was found by Hurst lying posterior to the larynx and in front of the esophagus.

B. Posterior Pulsion Diverticulum is a prolapse of mucous membrane of the pharynx in an area bounded by two different sets of musculature, comprising the cricopharyngeus muscle, and innervated by two different sets of nerves.

In the foetus, the Cricopharyngeus muscle divides into (1) an upper superficial constrictor in pharyngeal constrictor musculature and (2) a lower deep sphincteric part which blends posteriorly with muscle of esophagus.

The constrictor part passes obliquely upward around the esophagus, while the sphincteric part passes obliquely downward, leaving a weak area in posterior wall of pharynx between superficial and deep portions. In this spot, the pharyngeal mucosa may prolapse. These usually occur on the left side. The next common site is the Killian-Jamieson area on the postero-lateral wall of the pharynx, below the cricopharyngeus muscle and above the circular muscle fibers of the esophagus. The least frequent site is the lower portion of the inferior constrictor muscle.

It is stressed by most writers that only the mucous membrane of the pharynx herniates through this area, but Shallow reports a case by Whitehead in 1891 in which the pharyngeal pouch consisted of all three coats of pharynx.

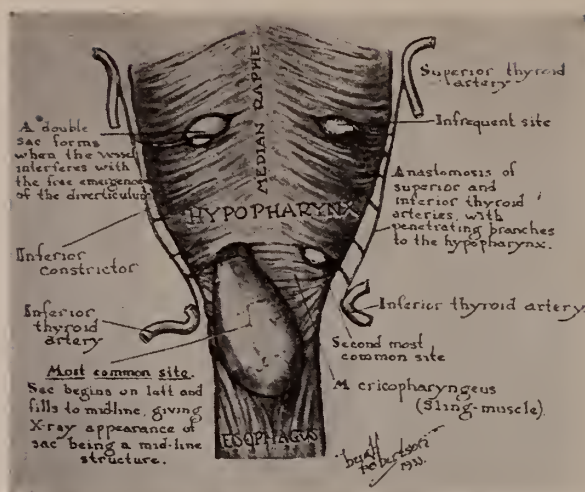


Figure 2. The pharynx, posterior view showing the various locations for the development of diverticula.

A similar case is reported by Shallow. Two conditions may set up this herniation.

(1) Loss of elasticity or degeneration of muscles composing the lower pharyngeal constrictors.

(2) Persistence of contraction of sphincteric portion of Cricopharyngeus muscle during deglutition.

During the second stage of deglutition, the pharyngeal constrictors contract while sphincteric portion of cricopharyngeus relaxes.

The nerve supply around the esophageal entrance is complex.

(a) Pharyngeal constrictors are supplied by the pharyngeal plexus.

(b) Upper end of esophagus is supplied by motor nerves from the recurrent laryngeal nerve.

*Symptoms:* I am presenting the composite symptoms that occurred in my five cases. Not all cases had all these symptoms as a whole, some patients stressed some things more than others.

(1) *Pain* in throat or below, with a "catching" sensation after swallowing.

(2) *Coughing* up of food particles previously eaten, as well as medication. For instance, one patient had been given some pills for pneumonia which he later coughed up, despite which or because of it he recovered from his pneumonia.

(3) Sensation of *belching* occurs during talking when pressure is made over one side of

the neck or the other. Sometimes the sensation is one of gurgling.

(4) *Fullness* in neck after eating.

(5) *Difficult* to clear throat at times with feeling of something being stuck there. This may lead to erroneous impression of a *globus hystericus*.

(6) *Difficulty* of taking liquids at times.

(7) *Loss of weight* despite presence of good appetite.

These symptoms were found to be present anywhere from seven months in one case to nineteen years in another case before coming to operation. In the nineteen year case, it is significant that, although the patient complained of throat trouble on several occasions, in view of the fact nothing was found on laryngeal examination, he was labeled a mental case. It was only after an attack of pneumonia when an x-ray of chest and esophagus was made that the diverticulum was diagnosed. Other symptoms that may occur are:

(8) Hoarseness due to pressure on recurrent laryngeal nerve.

(9) *Ptosis* or *exophthalmos* due to pressure on cervical sympathetic plexus.

*Diagnosis:* A diagnosis is made by a combination of (1) symptoms as evaluated from a clinical history, and (2) x-ray and fluoroscopic findings. As a rule nothing is found on physical examination with the exception of an occasional

ballooning out of the lower part of the neck on swallowing. This is a rare finding. Esophagoscopy is advisable not for the purpose of establishing a diagnosis of diverticulum, but rather to disclose if a neoplasm or a stenosis is at the bottom of the trouble.

*Differential Diagnosis:* Here we must consider chiefly carcinoma of the hypopharynx and upper esophagus and stenosis of esophagus, hysteria, acute and chronic infections. Recently a patient was admitted to the hospital with a preliminary diagnosis of diverticulum. The x-ray revealed a large dilated sac, but there was not seen the fine stream of barium descending from the subdiverticular opening as is usually the case. On esophagoscopy a tumor was found in the pyriform sinus which on biopsy proved to be a carcinoma.

Another case revealed a stenosis of the esophagus just below the cricopharyngeus muscle due to a lye burn when a child. This displays quite a sac.



Figure 3. Stenosis of upper esophagus with dilation simulating diverticulum.

*Treatment:* The treatment of pharyngo-esophageal diverticula is surgical. Conservative treatment however is reserved for very old patients, as well as for diverticula of the esophagus below the clavicle.

Dilatation of the subdiverticular is difficult and unwarranted, for in this spot lies the cricopharyngeus muscle which is the only bound-

ary fence between the pouch and the mediastinum. Perforations may be easily obtained.

The operation of choice has fluctuated back and forth between the one stage and the two stage procedures. Men of great distinction can be quoted for either side.

Nichaus in 1884 is believed to be the first to remove the sac in one stage, but a hemorrhage proved fatal on the twenty-fourth day.

Von Bergman in 1892 reported the first successful extirpation, but a fistula persisted for six months.

Hearn in 1899 reported the first case in the United States.

Girard of Berne in 1896 invaginated the sac without opening into the esophagus. This method was adopted by Halstead, Bevan and others.

Goldman in 1906 did the first two stage operation.

C. H. Mayo in 1910 further advocated the two stage procedure and this technique was developed by Judd and Mayo, adopted by Lahey, Heyd, Pool, and others.

The chief danger of the one stage operation lay in infection of the mediastinum from incomplete closure of the neck of the excised sac.

The mortality rates following the one stage operation in its earliest usage compelled the introduction of the two stage procedure. The feeling ran high that this then was the proper procedure.

In 1930, Jackson and Babcock revived the one stage procedure by an air and water tight closure of the esophagus. They used the esophagoscope to locate the sac and act as a guide to the closure to prevent a too tight fitting suture line which might produce stenosis. All cases were operated under avertin narcosis.

Moynihan reported fifteen cases of one stage removal, all successful. Many other successful results have been reported.

The two stage procedures according to Judd and Harrington should be reserved for those cases in which (1) the diverticulum is large. (2) Considerable inflammatory reaction is found at operation on exposing sac. (3) The sac extends into the mediastinum.

Some of the distinct advantages of the one stage procedure as pointed out by Phillips and Israel are:

(1) The shortened hospital time. Patient is subjected only to one operative procedure.

(2) Recurrence and fistulae formations are rare.

(3) Less danger of injuring the recurrent laryngeal nerve.

(4) Secondary bouginage seldom necessary due to minimal distortion of pharynx.

(5) Choking spells from air trapped in distorted anchored sac in two stages are eliminated.

The cases reported here are all carried out by the one stage technic, with the exception of one, which was done in two stages, the reason for this being the fact that when the sac was freed, it was found to have such a wide neck that we felt it would be more prudent to accomplish it in two steps.

The operations were performed under local infiltration of skin and subcutaneous tissues, and deep cervical block of second and third cervical nerves. No esophagoscope was needed to locate the diverticulae. A Levine tube was passed into the throat sometimes before, and sometimes after exposure of the sac. Sulfathiazole powder was used in the depth of the neck wound in most of the cases.

The post-operative treatment was carried out according to the Babcock-Jackson procedure. In only one case was there any complication, and that was in the two stage procedure, when a low grade infection developed in the wound after the first stage had been completed, delaying the second stage several months.

#### CASE REPORTS\*

Case 1. N. C. White male, age fifty, entered the hospital December 4, 1940, complaining of difficulty in swallowing.

History: Pneumonia three times. Bilateral herniorrhaphy with a stormy convalescence. Recurrence of hernia after considerable coughing.

Present Illness: In 1922, he had occasional difficulty in swallowing, stating something was obstructing his food passage. Later he noted some gurgling in throat while swallowing. This continued until 1937 when he noted a gradual onset of pain in his throat in the afternoon, but not in the morning on arising. He

swallowed fairly well, but noted a "catch" after swallowing. *Coughed up* material contents. Entered a hospital in 1937, in a nervous state, and he was told his condition was mental. In December, 1939, when his throat became bad, he went to a hospital, was examined and again was told that his condition was mental. No x-rays were taken. In March, 1940, he had pneumonia, and was again told that his throat condition was all on a mental basis. In June, 1940, after second attack of pneumonia, x-rays of esophagus were taken. Whereupon a diverticulum was found.

Symptoms: *Pain* in throat or below in afternoon. "*Catching*" sensation after swallowing. *Coughing* brings up recently eaten food particles and stringy secretion. During his pneumonia attack coughed up pills that were given the previous day for pneumonia, and got well from the pneumonia. *Belching* sensation occurred when pressure was applied over lower right side of neck. *Balloon like swelling* over right side of neck on increasing pressure such as in Valsalva's test.

Physical Findings: A mild hypertension was present. Wasserman examination was negative. Blood count was negative. There was a slight recurrent bilateral inguinal hernia present.

Esophagoscopies: The first esophagoscopy made on December 18, 1940, disclosed a large pouch on the posterior wall of the esophagus at the level of the cricopharyngeal opening. The subdiverticular opening was anterior and somewhat to the left, but would not admit the esophagoscope. A further esophagoscopy resulted in same findings. Following operation, he was again esophagoscoped, which will be reported later.

X-ray Findings: (1) On December 10, 1940, the report showed smooth saccular dilatation in upper third of esophagus, measuring 3 x 5 cm. (2) On January 8, 1941, while swallowing a lead bead, the fluoroscope examination revealed the bead stopping at the level of sternoclavicular articulation. On swallowing a barium mixture, the lead pellet was seen to enter a pouch at this level, but after several attempts at swallowing, the bead was never seen to enter the subdiverticular opening. A diagnosis of Diverticulum of Esophagus was confirmed. A final x-ray was taken after surgical extirpation.

Operation: January 14, 1941. An incision was made along the anterior border of the sternocleidomastoid muscle on the right side from the thyroid cartilage to the jugulum. After exposing the sternocleidomastoid muscle and retracting it posteriorly, blunt dissection of the loose areolar connective tissue, exposed the thyroid gland to view, which it was necessary to divest of its surrounding loose tissue, elevate and retract medially. A swallowing movement immediately ballooned out the diverticulum lying behind the thyroid gland. The esophageal pouch was grasped, divested carefully of its fibrous covering down to the neck at its attachment to the posterior wall of the esophagus. The recurrent laryngeal nerve which lies in the groove between the thyroid gland

\*These cases were operated with the assistance and advice of Dr. Paul Brown, chief of the Surgical Service, and the cooperation at times of Drs. Randall Moreland, Benjamin Ward and Irving Feldberg. Miss Robinson, medical Librarian, kindly assisted in the compilation of the literature.



Figure 4. Diverticulum of esophagus prior to operation.



Figure 5. Esophagus after excision of diverticulum.

and the esophagus was isolated and packed off. The contents of the sac were emptied out by pressure. At this point, I might add that a report by Charles Mayo in 1910, warned against expressing the contents of the sac at this point because one of his patients aspirated the contents with almost disastrous results. However, his patient was operated during narcosis, which was the reason for the contents spilling over into the trachea. A Kelly clamp was placed over the neck of the pouch one-half inch from its junction with the esophagus, another applied distally, and the sac cut off between the clamps by the surgical diathermy knife, and the edge coagulated. An aseptic closure was accomplished, when a chronic, catgut suture was put through one edge of the stump to be used as a guy rope and the first row of sutures was placed through the mucosa and submucosa, first on one side of the clamp, and then over to the other side until the whole length of the stump was covered. By gradually making the suture taut as the clamp was being released the cut edge of the sac was closed by inversion of the edge. A second row of sutures was placed over this, closing the first line of sutures, and finally, a third row of silk was placed over this. In this manner we were sure to obtain a complete water tight closure of the esophagus. By placing the first suture about one-half inch from the neck of the sac, a constriction of the esophagus could be avoided. A Levine feeding tube was inserted prior to removal of the sac. A rubber drain was inserted into the lower end of the incision in the neck. The muscles were closed with catgut. A subcutaneous approximation was made, and the skin closed with interrupted silk sutures.

**Post-Operative Care:** Following Jackson and Babcock's method, the patient was given 120 cc. fluid every two hours thru the tube followed by sterile water. This was increased 30 cc. on second day until patient received 240 cc. every four hours. On seventh

day several teaspoonsful of sterile water was given by mouth. On eighth day, the tube was removed and thin liquids given. After two weeks, he was allowed semi-solid soft food. After the sixth week, solid food was given. X-ray showed barium passing without hesitation. On February 6, 1941, an esophagoscopy revealed a slight thickening on the posterior wall of the esophagus where the stump was inverted. No further evidence of a diverticulum was present and the esophagus could be inspected for the first time. He was discharged February 7, 1941. Pathological diagnosis was Esophageal Diverticulum.

**Case 2.** A. T. White male, age fifty, entered the hospital September 16, 1941, complaining of difficulty in swallowing, regurgitation of food and occasional gurgling sensation.

**Present Illness:** For many years patient has felt that there was something in his throat that did not belong there. For the past two months he could not clear his throat, felt like something was sticking. Food regurgitated frequently. Hard uncooked foods were especially difficult to cough up as they seemed to become lodged. Found difficulty at times in taking liquids. Noticed discomfort and gurgling in left side of neck which was relieved by coughing. After coughing he would bring up small pieces of food which had been consumed several hours previously.

**Laboratory Examination:** Wasserman and Kahn were negative. Blood, sputum, and urine were normal.

**X-ray Examination:** On September 19, 1941, fluoroscopy and x-ray revealed a fairly large diverticulum protruding from the left side, and on posterior aspect of esophagus at the level of the 6th vertebra. Barium is retained in diverticulum and compresses esophageal wall to some extent.

**Esophagoscopy:** An esophagoscopy was done on September 30, 1941, and a large dilated sac was found about 16 cm. from the upper teeth, which contained a

moderate amount of fluid and food particles. The sac deviated towards the left. The subdiverticular opening was noted quite anteriorly and could be entered with flexible bougies but the esophagoscope could not be passed into the opening.

Operation: October 31, 1941. Local anesthesia and cervical block were used. A Levine feeding tube was passed into the diverticulum of the esophagus. An incision was made along the anterior border of the left sternocleidomastoid muscle from the thyroid cartilage to the clavicle. The diverticulum was located lying upon the prevertebral fascia and extending downward about 5 cm. After freeing sac from the surrounding tissues, the neck was exposed, measuring about 2 cms. in diameter. The contents were carefully squeezed out. The sac was cut off in the manner previously described and the stump closed as in the preceding cases. A small Peurose drain was inserted in the lower edge of the wound, which was closed with catgut and silk.

Post-operative care in addition to the Jackson feeding procedure included thirty grains sulfathiazole thru feeding tube following operation, and fifteen grains every four hours for the next four days.

A barium x-ray and fluoroscopy on November 22, 1941, revealed no evidence of diverticulum.

On December 8, 1941, a post operative esophagoscopy permitted the introduction of the esophagoscope for the first time with no evidence of any constriction.

Case 3. A. H. S.: White male, age fifty, was admitted to the hospital April 2, 1942, complaining of fullness in neck, and loss of weight.

Present Illness: Onset of sore throat occurred in September, 1941. Was treated for sinus trouble with no benefit. Noticed after eating, a fullness in neck, had no tendency to vomit, but could express the fullness with his hand, and expectorate the contents. Had lost fifteen pounds in past six months though appetite is as good as it ever was.

Laboratory Examination: Urine and blood examinations negative. Wasserman and Kahn negative.

X-ray Examinations and Fluoroscopy: On April 6, 1942, a small diverticulum of the esophagus was noted, extending from the posterior portion of the mouth of the esophagus, measuring approximately 4 cm. in diameter.

Esophagoscopy: At 15 cm. from the teeth, there is an opening into a sac which appears somewhat to the left. The subdiverticular opening of the esophagus could not be located with the esophagoscope, but careful insertion of flexible rubber tipped bougies revealed the opening to lean towards the right and anteriorly.

Operation: May 5, 1942. Under cervical block on the left side, in addition to novocaine infiltration, an incision was made as in the other cases, and the sac found just above the cricopharyngeus region, measuring 5 to 6 cm. in length. A feeding tube had previously been inserted through the nose into the sac.

All the sac contents were expressed out and a clamp placed 1 cm. from the base of the sac, and the sac cut off. The edge was painted with tincture mercuriolate and stump closed by three layers of sutures as in the previously mentioned cases. A rubber drain was placed in the lower end of the wound, sulfathiazole powder was insufflated into the cavity of the neck, the muscles and subcutaneous tissues approximated and the skin incision closed.

The post-operative care followed the same course as previously outlined. A final x-ray examination June 5, 1942, revealed a normal appearing esophagus. No post-operative esophagoscopy was done. The patient was discharged on June 13, 1942.

Case 4. H. W. K. White male, age fifty-four entered the hospital July 3, 1942, complaining of difficulty in swallowing and regurgitation of food.

Present Illness: First noticed difficulty in *swallowing* and *regurgitation* of food about three to four years ago, especially on lying down. This has become gradually worse, especially for the past six months.

Laboratory Examination: Wasserman and Kahn negative. Blood count showed a 3,800,000 red count otherwise negative. Urinalysis negative.

X-Ray Findings: On July 6, 1942, a large pulsion diverticulum was found approximately 7 cm. in diameter, extending directly posteriorly at the introitus of the esophagus.

Operation: July 21, 1942. After cervical block and local infiltration of the neck, the usual incision and exposure of the esophagus was accomplished, and the sac isolated. The sac measured about 5 to 6 centimeters in length, and 2-2½ centimeters in width. The sac was at the posterior surface of the esophagus at the cricopharyngeus region. The sac was severed at the neck between two Kelley clamps, the stump treated with phenol-alcohol, and closed in the usual manner as noted in the previous cases.

The usual post-operative feeding was carried out and the tube removed on the seventh day. A post-operative esophagoscopy on August 20, 1942, revealed a slight puckering of the mucosa of the esophagus, but the incision was well healed. At this site there was a slight constriction through which the esophagoscope could be passed with slight pressure. This patient would probably require several dilatations to maintain the proper lumen. He was discharged on August 21, 1942, four and one-half weeks after operation. I believe this was probably too soon to discharge a patient, who might have needed further observation but he ate everything and well, and was straining at the leash at his inactivity. Pathological diagnosis of specimen was Diverticulum, Infected.

Case 5. A. P. E. White male, age fifty-four, entered the hospital January 6, 1942, complaining of difficulty in swallowing.

Past History: Had the usual childhood diseases, was told about ten years ago that he had syphilis.

**Present Illness:** States he has had difficulty swallowing, for the past eight to nine years. The condition has neither improved nor progressed. Liquids and soft foods do not give trouble, only solid foods do. These stop in his throat and will not go down.

**X-ray Findings:** On January 9, 1942, a fluoroscope examination revealed a large diverticulum of the esophagus at the introitus, extending to the left and posteriorly.

**Esophagoscopy:** An esophagoscopy was done January 27, 1942, at which time 15 cm. from the upper gum margin there was noted a large dilated pocket. The sub-diverticular opening into the esophagus could not be visualized but bougies were passed through the esophagoscope readily into the esophagus anteriorly and to the right.

**Operation:** March 27, 1942. Under left cervical block and local novocaine infiltration, the usual skin incision was made and the diverticulum dissected out, the base of the sac lying at the level of the cricoid cartilage. After isolating the sac, it was found to have a rather wide neck, and a two stage procedure was deemed advisable. The fundus of the sac was sutured with several interrupted silk sutures to the medial border of the sternocleidomastoid muscle, the suture cut, leaving about 1 inch so that it could readily be found on reopening the incision. A small amount of iodoform was sprinkled into the lower cavity of the neck. The muscles were closed with catgut. A rubber drain was placed in the wound and the skin closed.

A low grade infection occurred which prolonged the period of healing so that it was not considered safe to proceed to the second stage for approximately two months.

**Second Stage:** On May 29, 1942, the scar was excised and marked adhesions were found surrounding the diverticulum. The sac was found filled with food contents. After the contents were expressed, the sac was completely stripped of its fibrinous covering and we proceeded not as in Lahey's method for the second stage, but exactly as we had in all our first stage procedures. The neck of the sac was not as wide as found at the original operation. The neck was grasped between two clamps and severed between them. The stump was cauterized with pure phenol and neutralized by alcohol, and closed over by three layers of sutures, the first of chromic catgut and the last one of silk.

Sulfathiazole powder was dusted into the neck cavity and after placing a drain in the lower angle the wound was closed. A Levine feeding tube was inserted into the esophagus through the nose.

The usual post-operative routine was carried out. Fluoroscopy and x-ray taken on June 26, 1942 showed a completely clear esophagus. No post-operative esophagoscopy was done. The patient was discharged on July 10, 1942, six weeks following the operation. Pathological diagnosis of specimen was Diverticulum of Esophagus.

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## DISCUSSION

Dr. Paul Hollinger, Chicago: Dr. Kulvin has certainly covered the subject in every respect. I want merely to ask a question or two. I wonder why the lesion is found most frequently on the left side.

Second, the question of esophagoscopy before operation; I think this is important in the surgical approach to the lesion. A previous esophagoscopy aids in determining whether or not the procedure must be postponed due to infection in the wall. During the operation, on the other hand, the sac may be emptied by the esophagoscope to avoid spilling its contents into the mediastinum during resection. Another advantage is that the esophagoscope brings the sac into the wound more readily and delineation of the upper and lower borders may be done more efficiently.

I was surprised to hear of esophagoscopy so soon following the surgical procedure, and I wondered what indication was present for which the esophagoscopy was done.

Dr. Thomas C. Galloway, Evanston: I think it is a point to be borne in mind for the occasional operation of this type, that the two-stage operation is always safer. Perhaps this is not necessary in the hands of

a man whose technic is nearly perfect, but for one who has not done the procedure often, it has considerably less risk.

Dr. Max M. Kulvin, Chicago (closing): In regard to the diverticulum coming more commonly on the left side, it seems that there is no explanation. We always do esophagoscopy before the time of the operation. Occasionally we have missed one, and we have had no difficulty so far as the sac was concerned, but whenever we have the opportunity we do it.

We have not found it necessary to use the esophagoscope to expose the sac. These men are not asleep, and inserting the scope causes a good deal of tension. It makes the patient gurgle and spit and we have found it is not essential.

As to the early esophagoscopy subsequent to operation, I do not recall saying that it was early. I think six weeks is long enough time following operation, because by that time we are giving him solid food. I do not feel there should be any difficulty at that stage.

In reply to Dr. Galloway, some use two-stage and some one-stage. I prefer one-stage myself, and find it is easily carried out. By using the one-stage procedure, the advantage of saving the patient one more surgical experience is obvious.

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## NASAL SINUSITIS: PROGNOSIS AND TREATMENT BASED ON A MORE RATIONAL HISTOPATHOLOGIC INTERPRETATION

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AND

M. F. SNITMAN, M.D.

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Although the pendulum is swinging away from radical sinus surgery, the explanation for this trend is based solely on clinical grounds. Advances in allergy have decidedly influenced the situation, but even the allergic factor fails completely to answer why radical surgical procedures are now rejected for the large majority of sinus problems.

Not so long ago one of us (H)<sup>1</sup> pointed out that every diagnostic study of the nose and sinuses should embrace serious consideration of the prognosis. The potential outcome of a given case often sways the rhinologist toward or from surgical intervention. Can we speculate on the

prognosis of chronic sinus involvement on the basis of clinical results alone? Or is it more plausible to evaluate the possible changes which take place in tissue subjected to infection?

It is our contention, from our own experience as well as that of a number of our colleagues, that the results of radical sinus surgery need be greatly improved if we are to consider it the acme of perfection in the management of simple chronic sinusitis. This view is fortified still further by data<sup>2</sup> obtained by questionnaire from a large group of rhinologists. These data conclusively refute the assumption of those specialists who believe that the end results of sinus surgery as hitherto practiced are highly satisfactory.

These statements are not intended as destructive criticism of the surgical methods of the past. Rhinologic therapy has passed through various stages of conservatism and radicalism, a fact which applies equally to non-surgical as well as to operative procedures. One needs only refer to the recent advances in nasal physiology to understand the efforts being made to rationalize current therapeutic methods.

In the correction of pathologic processes the endeavor, as far as possible, should be to conserve normal function of structures, or restore or repair them when they become involved by infection. There are a number of rhinologic measures which strikingly show the differences between those that are purely mechanical and those that are biologic. The former are characterized by destruction, impairment or abolition of function, while the latter typify the surgical ideal of biologic conservation. These newer physiologic principles render a departure from the older technics in rhinologic surgery highly essential to improved end results.

### IS RADICAL OPERATION RATIONAL IN CERTAIN TYPES OF CHRONIC SINUSITIS?

As intimated earlier the results of radical sinus surgery need to be improved. If we assume, for example, that there is justification for removing every vestige of mucosa in operating on an antrum, any argument we present in this discussion would be irrational. We are reasonably certain, however, that there is sufficient histopathologic proof to question the rationale of total mucosal extirpation under certain circumstances, even though not a few rhinologists

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From the Department of Laryngology, Rhinology and Otology, University of Illinois College of Medicine.

will endeavor to prove by clinical results that they have by such radical procedure "cured" numerous patients.

A sinus membrane passes through the several stages of inflammation the same as any other body tissue. It eventually reaches the stage during which under favorable conditions it may restore itself to a normal state or nearly so. If we fail to provide the essentials necessary for the restorative changes and intervene destructively, there is no way of determining what might have ensued had conservative therapeutic procedures been employed.

The principles underlying the management of sinusitis are no different today than they were decades ago. Ventilation and drainage when interrupted or interfered with by bacterial infection must not only be reestablished, but maintained. The question arises: "Does a destructive surgical procedure like extirpation of a sinus membrane furnish the means necessary for the reestablishment of a normal sinus?"

In the surgical treatment of the maxillary antrum for bacterial infection, it is our contention that the radical operation is outmoded. It is unessential to a cure since conservative methods frequently serve the purpose adequately. Our results and those of several of our colleagues are in strict accord with those of Hempstead,<sup>3</sup> who collected 1634 cases of intranasal antrostomy from the Mayo Clinic and the literature and reported 97 per cent good results. Hempstead emphasized that the window operation causes a minimal amount of injury to the lining membrane which is permitted to return to as "nearly normal" function as possible. Naturally cases must be selected for this type of operation as there is no set rule that it is suitable to all circumstances.

Van Alyea,<sup>4</sup> and others, have found nonsurgical procedures adequate for the large majority of patients with frontal sinusitis. Schultze<sup>5</sup> intervenes surgically in certain frontal sinus conditions but removes the membrane only if diseased beyond hope of recovery. In ethmoid sinusitis, however, anatomic factors enter into the problem, but even here such a simple procedure as infraction of the middle turbinate<sup>6</sup> has provided improved ventilation and drainage, often obviating thereby the necessity of more radical operative intervention.

#### HISTOPATHOLOGIC STUDIES

Our present deductions concerning the fallacy of radical operations in nasal sinusitis are the result of microscopic studies of large numbers of specimens of extirpated sinus mucosa. Our interpretation of the histopathology of sinus mucosa differs from that of most workers in that we do not consider most extirpated sinus membranes as being irreparably diseased. We believe that these membranes possess the ability of repair, if and when favorable conditions are established, principally adequate ventilation and drainage by proper attention to the sinus ostium. Nature will then carry the sinus mucosa through the process of healing as it does any other body tissue.

Roentgenograms alone or roentgenologic interpretations of filling defects may indicate macroscopic changes in the sinus mucosa, but such evidence,<sup>7</sup> in our opinion, does not provide ample scientific grounds for mucosal extirpation. Unless proof could be established that the mucosa has passed beyond the stage of recuperation, its removal is not justified. We do not argue against the necessity of total removal of the sinus mucosa in the presence of excessive polyp formation. Studies of numerous removed membranes have revealed that most of them are only moderately affected by inflammation and edema. Generally the lining epithelium is structurally perfect and apparently functions well. Some removed specimens show nothing more than a pure state of allergic inflammation, a state which in itself obviously contra-indicates their surgical extirpation.

Properly to evaluate nasal and sinus biopsies, it is necessary that one exercise a true appreciation of artefacts. The latter have in the past, in some instances, led to erroneous conclusions. It is significant that in a large series of biopsy studies of nasal tissue, two features are in evidence:

1. All biopsy specimens removed in the usual manner show more or less complete absence here and there of the overlying epithelium. This has been interpreted as ulceration<sup>8</sup> (Figure 1). Furthermore, oblique sections of columnar epithelium give the appearance of a stratified squamous variety and are considered as a form of metaplasia. Proper study will, however, differentiate between a true and a false stratified squamous epithelium (Figures 2 and 3).

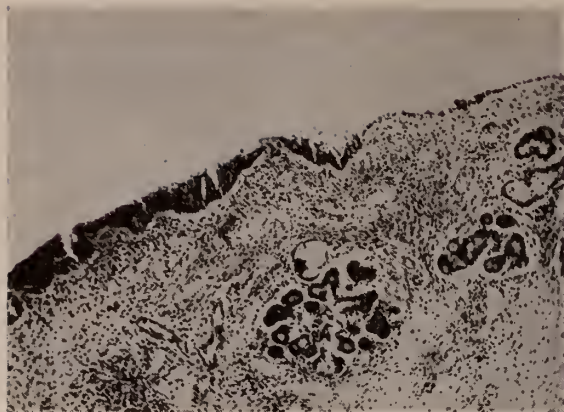


Figure 1 Middle turbinate with area of almost total loss of epithelium.

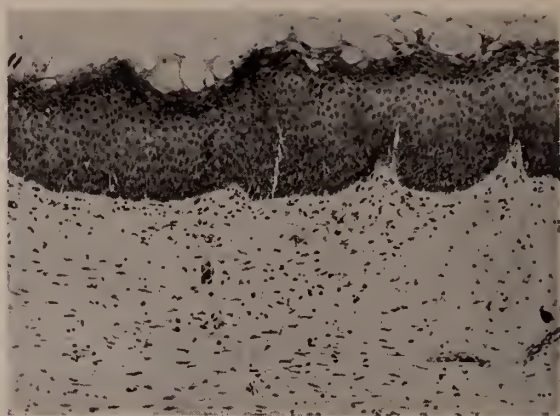


Figure 3 Ethmoidal polyp, true metaplasia of epithelium.

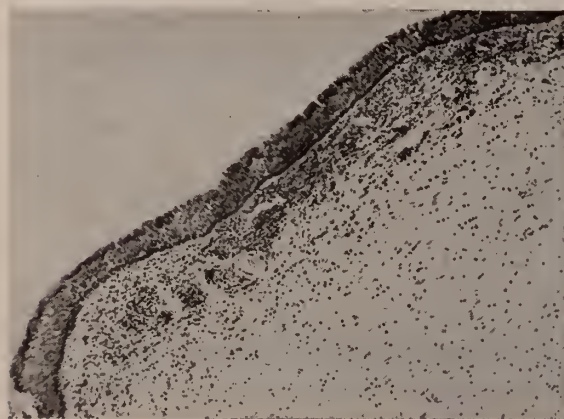


Figure 2 Antrum mucosa; oblique section of epithelium demonstrating false type of stratification.

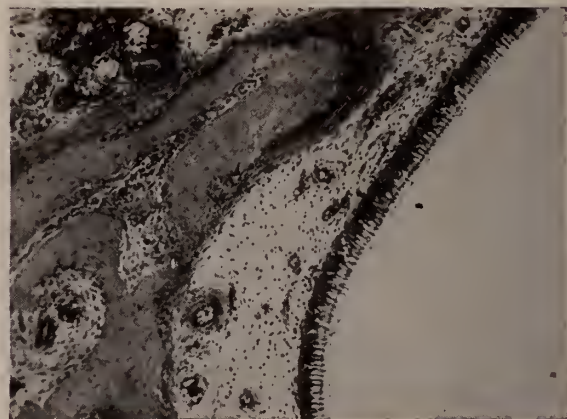


Figure 4 Normal ethmoidal mucosa with intact epithelium from non-traumatized autopsy specimen.

2. In those parts of the specimen which have not been traumatized during removal, the epithelial lining is totally intact. Such is noted, for example, in an ethmoid cell contained within a turbinate specimen or where the nasal structure *as a whole* is first fixed in formalin and then serial sections are made (Figure 4). Such is usually the case with autopsy specimens.

This study is concerned with tissues removed from patients who have not undergone repeated mutilating procedures with marked scarring, but in whom radical sinus procedures have been performed for the first time. This fact is of great significance for a final clinical interpretation. We have observed tissues with profound inflammatory reactions in the stroma, yet possessing a perfect pseudostratified ciliated columnar epithelium which from a microscopic point of view should possess the ability to function (Figures 5 and 6).

Further to bear out our views and contentions that virtually all removed sinus membranes which we studied were endowed with the power of rehabilitation, we call attention to the alterations seen in the epithelium and in the stroma.

A. Epithelium. — Normal sinus mucosa contained very few glands in contrast to numerous accumulations found in the nasal mucosa proper. This rare incidence of glands in the sinus mucosa is combined with active goblet cell formation of sinus epithelium. In some specimens almost the entire membrane is lined by goblet cells (Figures 7 and 8).

In most instances, in spite of the intensity of reaction in the stroma, a well defined ciliary border is easily discernible. Partial or total loss of the epithelial cells, suggesting ulceration, we believe to be of traumatic origin. To say that ulceration is the cause of these changes, one must demonstrate in the underlying stroma, necrotic or suppurative processes with varying degrees of granulation tissue formation. This we have not seen and it is interesting to note that the epithelial loss is associated with a smooth well formed basement membrane of variable thickness. That a true ulceration on an infectious basis does occur, we are unable to say.

Metaplasia of columnar epithelium into stratified squamous epithelium is sometimes seen, but we have

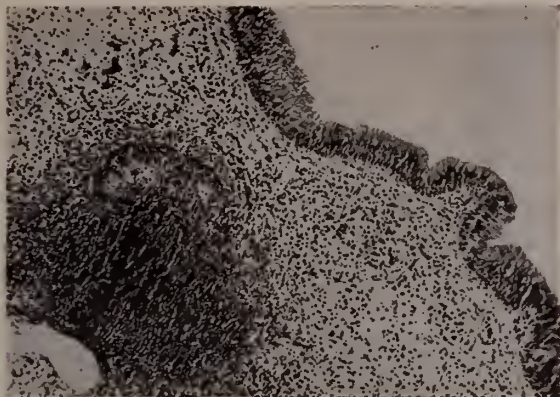


Figure 5 Antrum mucosa with intense inflammatory cell infiltration and overlying intact epithelium.

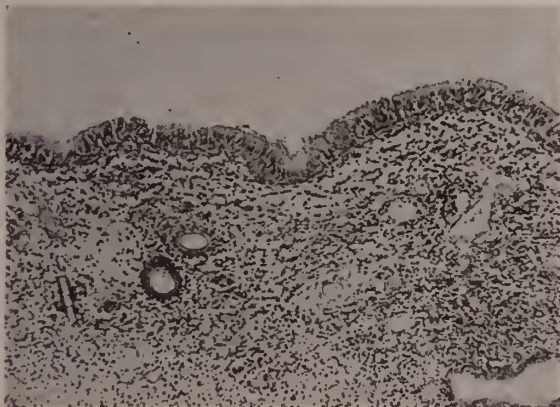


Figure 6 Frontal sinus mucosa with findings similar to Figure 5.

found it predominantly on the surface covering of polypoid growths in the sinus.

Papillary growth of epithelium is occasionally seen (Figure 9). The question arises as to which structure the epithelium or stroma is the existing factor in this overgrowth. The epithelial covering of the latter is a true pseudo-stratified ciliated columnar type.

B. Stroma. — All the biopsy specimens studied show fundamentally a basic pattern with some variations in the amount of individual cell types and edema. The pictures presented are those of a chronic inflammation with evidence of a tendency to repair (Figures 10, 11, 12).

The stroma, although undergoing varying degrees of chronic inflammation, is able to maintain and nourish a well formed and apparently functioning ciliated columnar epithelium. This is of paramount importance in consideration of the relationship of drainage of a paranasal sinus to its healing tendencies.

#### GENERAL AND LOCAL RESISTANCE

The outcome of an infection of the body will depend in a great measure upon the resistance of

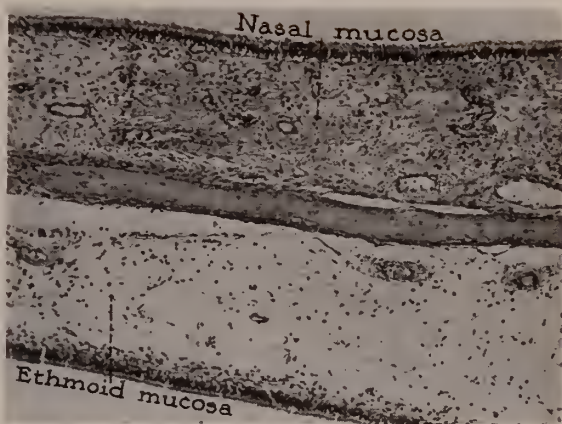


Figure 7 Nasal and ethmoidal mucosa with bony wall; absence of glands and delicate stroma of ethmoid cell.



Figure 8 Antrum mucosa; marked goblet cell activity.

the host and the virulence of the offending organism. From another point of view we recognize that tissues have the ability to rid themselves of the products of inflammation. A good example is a deep abscess signifying on one hand a winning battle, and on the other a problem of prompt and assured healing by maintenance of external drainage. This latter fact is especially illustrated in inflammation of the nasal and sinus cavities which are constantly cleansing themselves and performing their respiratory function by means of a muco-ciliary sheet. The poor anatomic position of the sinus ostium is no barrier to this sheet as has been repeatedly shown. At all times the proper functioning of the sinus mucosa is intimately related to the drainage pathways of the nasal and sinus spaces.

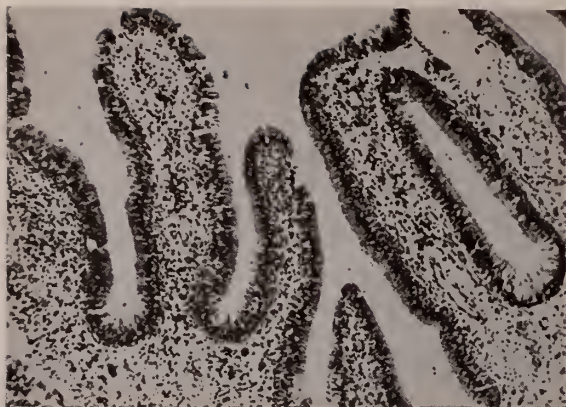


Figure 9 Antrum mucosa; papillary hypertrophy.

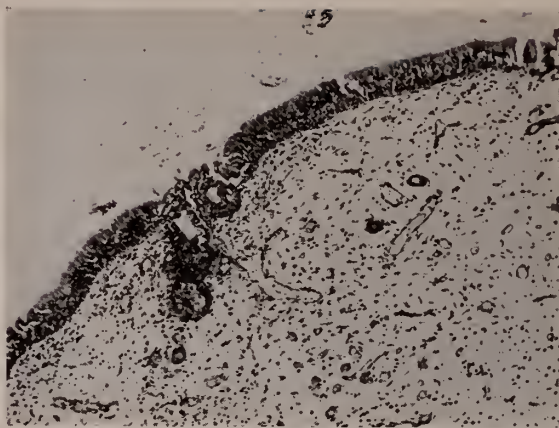


Figure 11 Frontal sinus mucosa; same as Fig. 10.

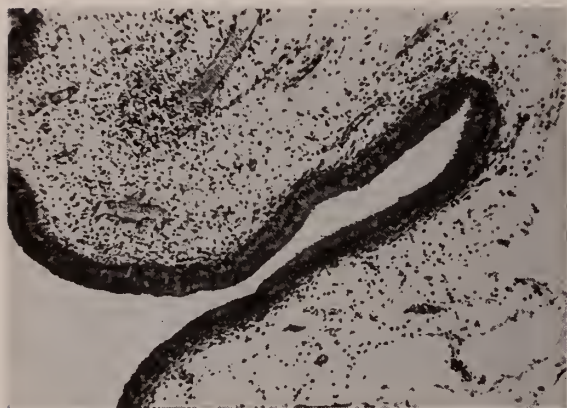


Figure 10 Antrum mucosa; chronic inflammation in process of repair.



Figure 12 Antrum mucosa; same as Figs. 10 and 11.

#### COMMENT AND CONCLUSIONS

The main purpose of this paper is to plead for a revision of existing indications for radical operations on the paranasal sinuses. On the basis of histopathologic studies of membranes removed at radical sinus operations, we believe that we are correct in stating that many of these procedures have been unnecessarily performed in the past. We assert that unless the prognosis of a given case can be predicted with reasonable accuracy when radical operation is advised, it is far better to resort to less drastic procedures. Clinical experience as well as histopathologic evidence has demonstrated that the average sinus involvement due to bacterial infection will correct itself if and when favorable conditions are established, viz., ventilation and drainage through a well functioning sinus ostium. Most sinus membranes are not irreparably "diseased" as usually interpreted. It would be more accurate to label them "reparative" or "resisting"

membranes. The prognosis of nasal sinusitis could be greatly enhanced by strict adherence to conservative therapeutic principles.

#### SUMMARY

1. The explanation for the more recent trend away from radical sinus surgery has been based solely on clinical grounds.

2. In the correction of pathologic processes in the nasal sinuses, the endeavor, as far as possible, should be to conserve normal function of structures, or restore or repair them when they become involved by infection.

3. There is sufficient histopathologic proof to question the rationale of total extirpation of a sinus mucosa, under certain circumstances, even though some rhinologists will claim clinical cures by such radical procedure.

4. Our interpretation of removed sinus mucosa differs from that of most workers in that we do not consider extirpated sinus membranes as being irreparably "diseased."

5. While roentgenologic methods may indicate macroscopic changes in a sinus mucosa, such evidence does not provide ample scientific grounds for mucosal extirpation.

6. Histopathologic studies of a large series of biopsies reveal that at least from a histologic point of view, the mucosa should possess the ability to function.

7. Clinical experience as well as histopathologic evidence has demonstrated that the average sinus involvement due to bacterial infection will correct itself if and when favorable conditions are established, viz., ventilation and drainage through a well functioning sinus ostium.

8. Finally, decision to extirpate a sinus mucosa frequently is incorrectly made because of failure to appreciate the significance of the clinical aspects of a sinus involvement prior to operation and the histopathologic aspects after it.  
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#### DISCUSSION

Dr. O. E. Van Alyea, Chicago: The authors have presented on the screen many convincing arguments in favor of conservatism in surgical procedures on the nasal sinuses. They have shown us specimens of sinus mucosa which were removed because of long-standing inflammatory conditions in the cavity.

The persistence of the infectious process in these cases should not be attributed to the condition of this membrane, but rather to the impairment of drainage, which interferes with the proper function of the sinus mucosa. The mucosa in these cases was not diseased; it was functioning to the best of its ability in a blocked cavity, and in most cases it would continue so to function for years. Also, in most of these cases improvement in drainage produces an early recovery from the infection. I am sure we have all observed complete cures in long-standing cases of maxillary sinusitis following intranasal antrostomy.

Similar results are attained in the frontal, sphenoid and ethmoid cavities by improvement in the drainage pathways. In cases of frontal sinus infection there is a marked tendency toward an early healing because of the location of the drainage outlet in the floor of the

sinus. Only those cases persist in which there is a narrow or sealed middle meatus, or an impingement on the nasofrontal channels by invading frontal or ethmoid cells.

Persistence of infection in the antral and ethmoid cavities is also often associated with a narrowed middle meatus, but may be due merely to an occluded ostium or blocked hiatus semilunaris. In many cases marked improvement in an inflammatory condition involving one or more of the anterior group of sinuses follows a simple infraction of the middle turbinate or the removal of polyps.

Drainage from the sphenoid is hampered by the location of the ostium near the sinus roof, and the presence of recesses and partial septa in the cavity, yet in most cases an occluded ostium further impedes drainage. These cases usually respond only if an adequate opening is placed in the anterior sphenoid wall.

It is gratifying to note the tendency toward conservatism in rhinologic surgery, as mentioned by the authors. A few years ago a wave of radicalism swept over the country and left in its wake many hopeless nasal invalids. We are occasionally confronted by an individual who has been subjected to many radical operations and who is still searching for relief. I feel with Drs. Hollender and Snitman that many of these operations were ill-advised; that the sinus mucosa in many of these cases was not diseased, but was resisting disease and was capable of being restored to a normal state at such time as adequate drainage would come to its aid.

Dr. Hans Brunner, Chicago: The paper of Drs. Hollender and Snitman is important from the theoretical as well as from the practical point of view. As far as the theoretical point is concerned, I agree with Dr. Snitman who emphasized that the absence of the epithelium is as a rule an artefact. It is in general very difficult in histology to make a diagnosis of something which is not present. But if the epithelium only is absent and the basement membrane is intact, it can be scarcely assumed that a necrosis or an ulceration restricted itself to the epithelium only. However, I also want to emphasize that even the accumulation of lymphocytes does not necessarily indicate inflammation, at least not an inflammation which necessarily subsides with the development of a scar. On the contrary, even a great accumulation of lymphocytes may disappear leaving the nasal mucosa intact.

As far as the practical point is concerned, I agree that in the past there was too much radical surgery performed on the sinuses. That is understandable. Every new surgical procedure is employed at the beginning with more enthusiasm than critical judgment. It is far easier to work out a new surgical technic than to find the indications for it. At present the enthusiasm for radical surgery on the sinuses has subsided, but one gets the impression that the recent enthusiasm for conservative treatment leads to an over-indulgence in that type of treatment. That is particularly true regarding the irrigation treatment which

at present has developed to an actual hydrotherapy of paranasal sinuses. I do not doubt the merits of that treatment but I do doubt the value of its overuse. I saw cases which were irrigated daily, occasionally even twice daily. That is certainly an improper procedure, which can be realized taking into consideration the mucosa of the ear, which is not hidden as is the mucosa of the sinuses. Every irrigation of a chronic otitis produces a hyperemia of the mucosa and it is well known that continuous irrigation leads to persistent otorrhea. This is even more so in relation to the mucosa of the paranasal sinuses which is more sensitive than the mucosa in a chronic otitis.

Dr. A. R. Hollender, Chicago (closing): I wish to emphasize that before any operative procedure on the sinuses is undertaken one should be able to anticipate the prognosis of a given case with some degree of certainty. This is, however, impossible with radical sinus operations. Many rhinologists undertake radical sinus surgery without due consideration of the prognosis. This whole problem resolves itself then not only in an appreciation of the significance of the clinical aspects of sinus disease *before* operation, but also an evaluation of the histopathologic aspects *after* operation. In other words, the operation must be justified by a microscopic study of the extirpated sinus membrane. Unless this is done the removed membrane should not be considered irreparably diseased. In most instances this implies that the radical surgical procedure was unnecessary. It is our firm belief, as pointed out in the text of the paper, that a large number of radical sinus operations cannot be justified on a histopathologic basis.

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## MEDICAL, NOT SURGICAL, AFTER-CARE OF BRAIN INJURIES AND CEREBRAL ASTHENIA

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CHICAGO

*Bio-Chemistry.* — Impaired brain cells have the same nutrition needs as do healthy or growing nerve cells; they should not be starved temporarily during the acute phase of surgical management following injury. Medical management should supplement and be concomitant with surgical treatment. Brain cells in disease, local or general, have the same wants. Their physiological metabolism, insofar as we know, are based on a few chemicals and compounds: intracellular oxygen, simple carbohydrates such as glucose, water, fats and oils (uncooked), iron, magnesium, manganese, unconjugated calcium, unconjugated phosphorus, sodium, potassium, chlorine, pro-vitamins A

and the B group, and alkalies to combat the waste metabolic products of lactic and phosphoric acid acidosis.

The injured or impaired or exhausted brain needs more of them than does the normal brain.

*During Unconsciousness.* — Unconsciousness from injury, as seen on the surgical wards, or from apoplexy, as seen on the medical wards, presents the some dilemma: shall we dehydrate the patient to reduce intracranial pressure, or shall we hydrate the patient so that the brain cells may be given their metabolic chemical needs? There are pros and cons. The question is like how long shall we leave on a tourniquet? Or shall we say it is physics vs. chemistry?

While a patient is unconscious, then his brain cells' needs may be supplied partly by rectum, partly intravenously, and partly subcutaneously. Water insoluble stuffs must be given per rectum and at times different from water soluble rectal feedings. Assuming the patient gets four proctoclysis cans per 24 hours, the nutrients may be added when the can is down to its lowest one-third. Add four heaping teaspoonfuls of powdered glucose, one teaspoonful of glycerophosphate, 7-10 grains of epsom salt, 5 or 6 grains of fresh ferrous sulfate (by dissolving non-enteric coated tablets of ferrous sulfate), one ounce of mineral alkali water, 50 mg. of ascorbic acid, calcium gluconate in solution or in suspension, and an uncertain amount of vitamin B complex from yeast or rice but not from liver. I think it preferable not to give the calcium (calcium gluconate) and the phosphorus (glycerophosphate) at the same time lest they conjugate into a calcium phosphate from which nerve cells can absorb neither the calcium nor the phosphorus, but they be given in alternate proctoclysis cans.

If the unconsciousness lingers over three days peptonized milk may be largely substituted for the water in the proctoclysis, and the water soluble medicants mentioned above added to the peptonized milk. Other nourishments may be added one at a time.

Also per rectum, and by a small bulb syringe, once or twice a day *between* the proctoclysis administrations there may be given  $\frac{1}{2}$  oz. of malt with cod liver oil and phosphorus to which has been added the contents of one perle of 25,000 units of vitamin A.

While the patient is unconscious 100. mg. of thiamin can be given once a day by hypo.

For sodium, potassium and the needed trace of manganese the body's reserves and fluids must be the source of supply.

*Intra Cranial Insults.* — Apoplexy and other vascular conditions such as thrombi and emboli with infarcts and cerebral softenings may be treated according to the above program. Vasodilators are indicated, especially the nitrates. These are more useful than potassium iodide later. Vascular conditions include the "bends" after too rapid decompression and the results of nearby explosions or of flying too high.

The usual treatment for shock is always in order with any unconsciousness of cerebral origin.

*Treatment During Consciousness.* — After brain injury from trauma from without or insult from within, after cerebral asthenia post infections or toxic, after tryparsamide or malaria or shock treatment, after influenza or any prostrating and exhausting condition, after nerve (brain cell) exhaustion from too protracted or over-emotional strain, and after general or local (brain) malnutrition the same medical program by mouth and by hypo plus some modifications is indicated. For the sake of lucidity it is stated:— Rx 1. Malt with cod liver oil and phosphorus, one tablespoonful a day, most days. Rx 2. Vitamin A, 25,000 units per perle, one a day five days a week. Rx 3. Thiamin 100. mg. by hypo once every 2 to 7 days, for weeks; to be supplemented by Thiamin 5. mg. tablet by mouth three times a day or one at each meal, or smaller doses or less frequent doses by mouth if there is diarrhoea. Rx 4. If anemic, ferrous sulfate, 3 or 5 grain tablet, plain or enteric coated, in broken courses or in waves. Specifically, if an overmenstruating female, 15 grains a day for the first ten days after each menstrual period stops. In other anemic cases, if using the three grain tablet of ferrous sulfate, always after meals, e. g. Feosol, 18 grains one day, 24 grains the next day, 18 grains the next day and none the next day, continuing this rhythm which may be expressed for the patients' convenience in terms of tablets 6-8-6-0-6-8-6-0-etc., 6 tablets one day, 8 the next, 6 the next, and 0 the next, and repeat for months. If 5 grain enteric coated tablets are given, the numbers on successive days are 4 tablets — 5-4-0-4-5-

4-0- etc., for months. This may be reenforced by Rx 5, Reticulogen 0.5 cc once a week by hypo, added to 1 cc of Thiamin equalling 100. mg. in the same hypo syringe before administration. Rx. 6. Any alkaline mineral water between meals or an alkaline ash diet, e.g. juice of 4 to 6 oranges a day. Rx 7. Calcium gluconate 15 grains between meals twice a day on every third or fourth day, e.g. 10 A. M. and 3 P. M. on Tuesdays and Fridays. Rx 8. Magnesium sulfate, 15 or 20 grains, in hot water and fruit juice once a week, e.g. Sundays. (Caution. Do not spill sulfate crystals on the floor or carpet for it attracts moths and encourages their breeding. Mix it over the sink.) Rx 9. Vitamin B Complex. Note, persons with high blood pressure may be worsened by taking B Complex from liver but may be benefited by taking B Complex from yeast or rice or wheat germ. Rx 10. If thinking is fuzzy and monotonous as in confusion or in brooding Niacin Amide 100 mg. tablets with a crease is taken as follows:  $\frac{1}{2}$  tablet or 50 mg. taken half-way *through* lunch and 1 tablet or 100 mg. taken *during* supper. Rx 11. Glucose, corn sugar, or even corn syrup (dose 3 tablespoonfuls), 3 heaping teaspoons of the dry powder in orange juice and water; mix, drink before arising and repeat at 10 A. M. and 4 P. M. and 10 P. M. daily; also glucose in place of cane sugar for table use, using 3 heaping teaspoonfuls in coffee or on cereal etc. as it is only one-third as sweet to the taste. Rx 12. Glycerophosphate, 1 teaspoonful of elixir a day except on calcium days. Rx 13. For head pains or for emotional tension Larodon 5 grs. one every 4 or 5 hours as needed, for example in occipital and basal head injuries more Larodon on low or falling barometer days. Rx 14. Alkaloids as needed, e. g. prostigmine by hypo at first whether or not unconscious, followed by oral. Basal head injuries are commonly found in sailors standing, let us say, on the second deck and a penetrating bomb falls through to the third deck where it explodes. The deck above buckles upwards, and the force is transmitted through the legs and spine up to the base of the skull.

Besides these medicants, the program should include long, gentle, purposeless (i.e. duty-free or not to any goal), quiet walks, and eating 60 to 80 calories per hour while walking an hour.

The diet should be high in uncooked fats and oils, and should be high in "white foods and white food stuffs" (e.g. a chocolate cake is made mostly of white food stuffs although stained brown by the chocolate).

Concomitant physical conditions such as menopause, hyper or hypo tension, syphilis, duodenal ulcer, spastic colon, etc. require their treatment.

*Nerve Cell Asthenias.* — Brain asthenia may develop in warriors and in civilians. Combat fatigue, operational fatigue and air fatigue — to use modern terms be they well chosen or poorly chosen terms —, and the unnamed fatigue from over thinking such as too vivid over-preimagining or regretful haunting memories is enhanced by physical ill health as from malaria, etc., over activity or poor hygiene and being too sedentary.

It can be mentioned but it can not be stated that there is a concomitant fatigue of the sympathetic nerves. If that view is accepted then many fatigue or exhaustion somatic functional symptoms are explicable. There is more than a modicum of truth in the often heard statements, "I am too tired to sleep," "My sleep center is tired out and does not work," "I am never refreshed." May we not assume what seems clinically verified, that what (medication and program) is good for brain cells is good for any or all other nerve cells? I think so. It is logical but it is only thinking by analogy hence subject to errors.

In civilians with exhaustion asthenia this medical program is effective irrespective of the cause. Among the causes a few may be mentioned, viz., insufficient vacations and respites from work, alcoholism, withdrawal treatment for alcoholism, narcotic addiction, melancholia, grief, emotional exhaustion after shock, psychasthenia, panic, neuroses, psychoneuroses, hysteria, anxiety tension, prisoners e. g. military prisoners and those besieged and those defeated and on retreat), virus or bacterial encephalitis, delirium from any cause, eclampsia, chorea and/or rheumatic asthenia, infarcts, vascular diseases of the brain, automobile etc. head injuries, and before and after surgery of the brain, e. g. tumor.

Lastly, in malnutrition and deficiency diseases it must be assumed that there is also an intracranial deficiency neuritis. The treatment

is the same as outlined for the nervous system, plus the repair and restoration of bodily health and vigor.

Of course where there is a diagnostic lumbar puncture, 10 mg. of Merck's crystalline Thiamin called Betabion may be dissolved in 5 cc of spinal fluid and reinjected: the complications are negligible, and on the 8th and 15th day 30 mg. may be given as is so helpful in tabes and gastric crises.

A word of caution: once injured brains do not withstand at all well subsequent injuries — traumatic or internal, chemical (toxic) nor radiant (diathermy or infra red), nor extremes of heat or cold.

Post-traumatic dementia is more severe where the treatment is first surgical and then followed by neuropsychiatric brain nutrition treatment: post-traumatic dementia is less severe where the treatments are combined from the onset.

#### CONCLUSIONS

Instead of sedatives which depress brain cell metabolism, increasing brain cells' needed nutrients increases hope that impaired but not quite destroyed brain cells may recover.

The brain cells which have been injured need more nourishment and need nourishment earlier (after injury) and more continuously than do unimpaired brain cells.

The chemical wants of brain cells are few and simple. They include water, oxygen, sodium, and potassium, all of which they can always get from the blood and without medication, ferrous iron, unconjugated soluble calcium, unconjugated soluble phosphorus, simple glucose, some simple (uncooked) oils and fats, many of the pro-vitamins of the A and of the B groups, and some other known and some suspected vitamins.

Mechanical treatment of injured brain cells without chemical brain cell nourishment causes secondary brain cell deficiency neuritis which contributes to post-traumatic dementia and/or asthenia.

The medical program suggested is not incompatible with sulfa treatment nor open surgery nor present surgical management except dehydration to try to diminish intracranial pressure. It is a needed supplement and need not be delayed nor secondary in time or sequence: it should be concomitant.

During unconscious states from external trauma or from vascular insults chemical nourishment can be given partly via protoclysis and the water insoluble medicants given also by rectum by small syringe bulb between protoclysis administrations.

During and after brain diseases the same program is indicated.

In brain asthenia with consciousness the same chemical program may be given by mouth. Some of these conditions are named.

Deficiency in brain cell nutrition and metabolism may be encountered in civil and in military cases, and should be treated according to the basic needs and wants of the cells of the brain.

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## THE USE OF GELATIN AS A BLOOD SUBSTITUTE

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Among the benefits derived from the present war is the increased stimulus for the study of hemorrhage and shock, the mechanisms by which they operate, and the means to prevent or combat them. The efficacy of whole blood, plasma, or serum in the treatment of such conditions was discovered during World War I and is now established beyond question. If it were not for the technical difficulties of securing these substances in adequate quantities and in preparing them for storage and subsequent use, there would be little need for further search for an ideal blood substitute. As the most logical substitute for human blood or derivatives thereof, the blood of lower animals or certain of its protein fractions have been considered. Beef plasma and beef serum albumin have been the principal substances of this type employed and, although they possess the proper physical characteristics for a successful blood substitute, they carry with them the unfortunate quality of antigenicity, so that severe allergic reactions occur following their administration to hypersensitive individuals.

The primary objective in the treatment of either shock or hemorrhage is the restoration of blood volume. Crystalloid solutions are adequate to restore blood volume in uncomplicated hemorrhage, but are inadequate in conditions of shock, inasmuch as, in the latter case, capillary endothelium is unduly permeable and permits the rapid escape of substances of small molecular size. In a recent paper by Taylor and Waters<sup>1</sup>, the qualifications for a successful blood substitute are given as follows:

"(a) The molecule of the dissolved substance must be of such a size that the fluid will not leave the vessels too freely.

"(b) The solution must exert an osmotic pressure and possess a viscosity approaching as closely as possible that of whole blood; these qualifications depend upon molecular size and shape.

"(c) It should be as nearly as possible isotonic with the contents of the erythrocytes.

"(d) It must of course be non-antigenic and innocuous in every respect. In addition, it should be readily available, preferably cheap, and capable of being quickly and easily prepared for intravenous administration."

It should be emphasized that in order of importance rank first, freedom from harmful effect, second, efficacy in the use for which it is intended, and last, ease of preparation and facility with which storage and administration can be carried out.

In a search for the substance which meets these requirements, many materials have been investigated, such as gum acacia, pectin, methyl cellulose, and gelatin. Acacia has been used rather extensively during and since the last world war so that a very adequate period for evaluation has elapsed. It is pretty generally accepted that gum acacia is not a good blood substitute because, 1. Preparations of acacia may vary widely and some of these possess a rather high degree of primary toxicity and cause severe reactions and even death when injected. 2. Acacia is deposited in and stored for long periods of time in many organs and tissues, particularly in the liver and kidneys where there may be marked untoward effect on function. 3. Acacia is antigenic and has been responsible for severe allergic reactions. Pectin and methyl cellulose are two more recent substances to be investigated in these respects. They have apparently been used with considerable success in the restoration of blood volume in shock and hemorrhage and

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have not given rise to significant primary toxic effects, nor have they been found to be antigenic. Here again, however, deposition and storage occurs in various parenchymatous organs, as a result of which normal function of these organs may be seriously altered.

Gelatin was first used as a blood substitute by Ringer in 1885. He found that he could obtain recovery in a frog's heart exhausted by long perfusion by saline if he added gelatin to the solution. Hogan, in 1915, was the first to infuse this substance into human beings; he reported success in six patients so treated. It is difficult to understand why gelatin has not been more extensively investigated from the standpoint of a blood substitute. A part of this reason may rest with the fact that during the early period of investigation, the substances from which gelatin was prepared were often grossly contaminated and reports were published to the effect that gelatin contained tetanus spores. With the present methods of manufacture of gelatin, such difficulties have been overcome.

Gelatin is a heterogeneous mixture of protein fractions which vary from 10,000 to 90,000+ in molecular weight and which exhibit variation in properties such as solubility, viscosity, etc. Several different types of raw material are commonly used in the preparation of gelatins, e.g. bone, calf skin, and pig skin, and each of these substances may be treated in a variety of ways before the final product is obtained. As a result of this, many types of gelatin are produced which differ widely in their physical and chemical characteristics and in the physiologic action which they exert when fed or injected parenterally. This very important fact has been overlooked by almost all of the early workers who have investigated the biologic action of gelatin and is undoubtedly responsible for many of the conflicting reports upon primary toxicity, physiological effects, etc.

The work which is being done on gelatin at the University of Chicago is in the nature of a cooperative study in which Dr. Evans and Dr. Carter Johnson are investigating the chemical properties of various gelatins and means by which these substances can be refined or fractionated. Dr. Brunschwig is studying the metabolism of gelatin when introduced into the body, and Dr. Cannon and I are investigating possible

toxic or immunologic properties of gelatin. Dr. Levinson and his group at Michael Reese Hospital are studying the effects of gelatin in hemorrhage and shock. The Edible Gelatin Manufacturers Research Society have provided a grant for these studies, and have furnished us with many different types of gelatin and with information as to their preparation and physical properties. We have found a rather wide range of physiologic action in these various samples and from a preliminary survey have selected several preparations which are not pyrogenic nor toxic, for more intensive study.

Dr. Levinson and his group have tested a number of these gelatins as to their efficacy in the treatment of shock in dogs and have observed effects which differ widely with the preparations used. Some of these gelatins were definitely harmful in their action. Several of the gelatins tested, however, were very effective in the treatment of shock and in some instances appeared to be superior to blood serum in this respect. Similar successes have been reported during the last year by other investigators using isinglass, a gelatin made from the swimming bladders of fish, and ossein gelatin which is made from beef bone. In a recent report, Ivy and co-workers<sup>2</sup>, who investigated the effect of a wide variety of various blood substitutes in resuscitation after massive hemorrhage, conclude that, "Regarding gelatin, the material we have used is definitely superior to citrated plasma and to the other artificial blood substitutes tested, but it falls short of perfection. Further refinement of the product is required."

An important point of difference between gelatin and acacia, pectin, or methyl cellulose, is the fact that gelatin alone of these substances is metabolized to significant degree within the body, and it is this very decided advantage which accounts for the fact that gelatin is not stored in the body in the sense that these other substances are. In a recent series of observations on the effects of gelatin and gum acacia infused into dogs and rabbits Hueper states<sup>3</sup> "The behavior of gum arabic and gelatin is explained by the fact that gum arabic is relatively unstable and tends to become partially hydrolyzed while gelatin is readily degraded by the proteolytic enzymes present in the body into amino acid constituents, which are used in the

normal metabolism. It is apparently for these reasons that gelatin, parenterally introduced, does not give rise to appreciable phenomena which form a typical and remarkable feature of the organic lesions elicited by gum arabic."

In our studies on the effect of various gelatins on rabbits and guinea pigs, doses as large as 2 gms. per Kg. were given intravenously. From single injections or repeated injections on alternate days, we have observed no significant morphologic changes either grossly or microscopically which could be attributed to gelatin. The effects of such infusions have been studied in both normal and protein-depleted rabbits. We have also studied the fate of a diazo-gelatin compound which was prepared for us by Dr. Johnson. This compound possesses an intense red color and is coagulated by Bouin's solution, so that it should be possible to identify this material in proper histologic preparations if it is deposited in tissues. In two rabbits which received approximately 1 g. and 1.5 g. of this substance intravenously, none was visible in the tissues microscopically at 40 and 48 hours after its administration. As further evidence of lack of storage, Drs. Evans and Johnson, in studies with a gelatin solution which had been iodized with radio-active iodine, found, in a typical experiment, that a dog which had been infused with this substance contained, 72 hours after injection, approximately 1½ per cent of the injected gelatin in the liver and a similar amount in the kidneys. Other tissues contained less.

The major part of the gelatin injected intravenously into animals probably leaves the blood stream within 12-24 hours. Exact determinations are difficult because there is no quantitative test for gelatin which will differentiate it from many other proteins. Approximately 50 per cent of infused gelatine is lost in the urine. The remaining 50 per cent is metabolized in greater part.

Many experiments have been done to determine the efficacy of gelatin as a food source from which body protein may be synthesized. They are in agreement that although gelatin is metabolized (80 per cent or more), it is incapable in itself of contributing to the formation of more than a very small amount of body protein. According to a report by Weech and Goettseh<sup>4</sup>, gelatin has a potency value of — 0.093 as

compared with 0.616 for egg white. Whipple, et al<sup>5</sup>, state that gelatin alone added to the basal diet causes very little plasma protein production, but that, when supplemented by tryptophane, it gives a large protein output. In a later report<sup>6</sup> it is stated that gelatin plus cystine and either tryptophane or tyrosine gave a substance whose efficiency in regenerating plasma proteins was the equal of any other protein tested up to this time (1939). Other evidence for the digestibility of gelatin is provided by the observations of several investigators who have used a gelatin tolerance test for determining liver function and who have found that in normal fasted individuals, amino acids in blood and urine rise moderately after gelatin feeding. Dr. Brunshwig and his collaborators<sup>7</sup> have found that the daily injection of 150 cc. of 10 per cent gelatin solution into protein depleted dogs results in an increase in both total urinary nitrogen and in urinary non-protein nitrogen. A positive nitrogen balance is obtained and a considerable part of the gelatin nitrogen is retained. There is no evidence of a prolonged slow excretion of the retained gelatin after its administration has ceased. From these results it seems likely that a gelatin may be found which will be of value in parenteral feeding as a source for the synthesis of body protein.

There are certain peculiarities in the reaction of the blood following the injection of gelatin intravenously, changes which are similar, qualitatively at least, to those elicited by acacia, pectin, methyl cellulose and other macro-molecular substances. Hueper<sup>3</sup> has called these changes the macro-molecular hematological syndrome. The most striking feature is a marked increase in sedimentation rate. There is also a transient leucopenia and reduction in erythrocytes. Hueper believes that this represents an expression of the disturbances produced in the equilibrium of the colloiddally dispersed macro-molecules of the plasma.

The gelatin which we have studied most intensively is one which is prepared from pig skin and which has a relatively high viscosity and gel strength. It is non-pyrogenic. A 10 per cent solution of this gelatin in saline, adjusted to pH 6.8-7.0 and autoclaved at 15 pounds for 30 minutes has been given to rabbits, intravenously, 20 cc. per Kg. Following a single dose, the in-

creased sedimentation rate usually reaches a maximum one or two hours following the completion of infusion. This maximum is then maintained for 24 hours and then drops off to approximately normal by three days. Marked agglutination of erythrocytes can be seen even grossly in oxalated blood when a hanging drop preparation is made. *In vivo* observations, utilizing the transparent ear chamber technique in rabbits, has shown that marked agglutination of erythrocytes occurs intravascularly as well as in the test tube or on the slide. At first there are only occasional small clumps of cells. This progresses until almost all of the erythrocytes are involved and irregular clumps containing over a hundred cells can be seen. These clumps are entirely different from rouleaux in that they are quite irregular in outline and integrity of the individual cells is lost to a considerable extent (morphologically). These clumps are not of rigid structure, but appear something like tiny oil droplets which stick together and exhibit moderate deformity of shape, yet are capable of shifting around on each other while maintaining their intimate contact. These clumps can be squeezed into sausage-shaped masses if this is necessary for their passage through tiny venules or capillaries and there is no evidence that they cause embolic phenomena. Leucocytes do not participate to an appreciable extent in this agglutination nor is there significant sticking of leucocytes to the endothelium of the vessels. Along with these changes, there is observed a decrease in the leucocyte count of approximately 30-40 per cent which persists 5-24 hours, and a moderate decrease in erythrocytes and hemoglobin over and above that attributable to hemodilution. The properties of this same gelatin when modified by various chemical procedures are being studied also, in an attempt to eliminate the undesirable effect upon erythrocytes. A preparation has been made which causes little change in the blood sedimentation rate in rabbits. Observations to determine the effect of this substance on R.B.C.'s intravascularly have not yet been done. This material has been given to a considerable number of patients by Dr. Brunschwig without significant toxic reactions.

Studies on the antigenicity of various gelatins is in progress and there is little to report at this

time. From the observations of others, however dating back to 1908 when Dr. Wells first demonstrated that a single preparation of gelatin was non-antigenic, presumably because of its deficiency in aromatic amino acids, it is very probable that gelatins which are suitable for use as blood substitutes will be found which are non-antigenic. An immunologic study of various types of gelatin is necessary because of the few reports which indicate that certain gelatins are mildly antigenic. The most recent report of this sort is by Taylor and Waters<sup>1</sup> who state that the gelatin which they used, isinglass, caused mild but definite anaphylactic reaction in dogs which were reinjected with this substance after an appropriate interval.

In summary, certain selected gelatins may be stated to show considerable promise as substitutes for blood in the treatment of shock and hemorrhage because of the following properties:

1. They are relatively free from primary toxic action except for the fact that they cause agglutination of erythrocytes. It is possible that this property may be eliminated by the proper chemical treatment of the gelatin solutions.
2. They apparently do not give rise to storage phenomena as do acacia, pectin, and methyl cellulose.
3. They possess slight if any antigenic action.
4. They are effective in the treatment of hemorrhage or shock.
5. They may be utilized by the body for purposes of nutrition.
6. They are readily available in large quantities and can be easily and inexpensively prepared for intravenous administration.

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THE PERIOD OF HOSPITALIZATION  
FOR PREMATURE INFANTS

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The question of the average hospital stay of prematurely born infants was recently asked in the Division of Maternal and Child Hygiene. A search of the literature for the past five years, showed that while much has been written about the incidence of prematurity, the possible factors in etiology, the management, the mortality, and the means for lowering this loss, very little stress has been placed upon the matter of length of stay in the hospital. The three references noted with regard to this item gave the average length of hospital stay as 20½ days, 30½ days, and 43 days, respectively.

Desirous of further information on this subject, and aware that others, particularly pediatricians and public health officials, would be interested in current data, a questionnaire was sent to twenty of the larger hospitals in Illinois. This comprised the following four queries:

- 1—During the twelve month period, how many premature infants (babies weighing below 5½ pounds) were born at your hospital?
- 2—Of this number, a) how many were still-born? b) how many were born alive?

TABLE I

Hospital	Total		Premature babies		Discharged
	number	Stillborn	Born alive	died in hospital	
1*	292	46	246	43	203
2	123	25	98	31	67
3	59	14	45	14	31
4	52	4	48	15	33
5	107	19	88	19	69
6	54	10	44	12	32
7*	131	26	105	25	80
8	56	14	42	9	33
9	83	13	70	6	64
10	64	11	53	15	38
11	53	6	47	18	29
12	49	14	35	15	20
13	53	9	44	15	29
14	81	18	63	20	43
15	134	6	128	30	98
16	101	16	85	24	61
17*	65	3	62	20	42
Total	1557	254	1303	331	972

\*Data incomplete.

\*From the Division of Maternal and Child Hygiene, Illinois State Department of Public Health. Acknowledgement is made to the hospitals who participated in this study.

3—Of those born alive, how many died in the hospital, and what was the age of each infant at time of death?

4—Of those born alive, how many were discharged from the hospital, and what was the age of each infant at the time of discharge?

Replies were received from seventeen of the twenty hospitals, with data from three of these incomplete. (See Table 1).

As shown on the table, 1557 premature infants were born, of whom 254 (16.3%) were stillborn, and 1303 (83.7%) were living at time of birth. Of these 1303 living prematures, 331 (25.4%) died in the hospital, and 972 (74.6%) were discharged alive from the hospital.

Data as to age of those babies who died in the hospital, and of those who were discharged from the hospital, are available for 900 prematures. Of these 900 infants, 263 (29.2%) died in the hospital; age at time of death varied from 2 minutes to 93 days. The average length of life for this group was 2.4 days.

Six-hundred thirty-seven prematures (70.8% of those with data), were discharged alive from the hospital. The average hospitalization period for this group was 24.5 days, with extremes in individual babies ranging from 3 days to 122 days.

In the entire group of 900 premature infants born alive, for whom data is available as to length of stay in the hospital, the average period was 18 days.

SUMMARY: 1) Of 1557 premature infants, 16.3% were stillborn, and 83.7% were born alive.

2) Of 1303 living prematures, 25.4% died neonatally in the hospital; 74.6% were discharged from the hospital.

3) Of 900 infants whose hospitalization period is known, 29.2% died neontally, from 2 minutes after birth to 93 days, — the average hospital stay was 2.4 days; 70.8% were discharged living from the hospital with length of hospitalization ranging from 3 days to 122 days, and with an average for this group of 24.5 days.

4) If all 900 infants born alive and for whom hospitalization period is known, are considered, regardless of whether death occurred or discharged as living, the average length of stay in the hospital was 18 days.

# Abstracts

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## THE INTENSIVE TREATMENT OF EARLY SYPHILIS WITH MAPHARSEN COMBINED WITH ARTIFICIAL FEVER

Norman N. Epstein, M. D., Rees B. Rees, M. D.,  
and Henry D. Brainerd, M.D., San Francisco,  
Calif. In *AMERICAN JOURNAL OF SYPHILIS,  
GONORRHEA AND VENEREAL DISEASES*, 28;4;452, July, 1944

### A PRELIMINARY REPORT

#### Summary

1. A method of treatment for early syphilis combining massive arsenotherapy with artificial fever therapy has been described.

2. This method requires eight days for its completion. A dosage of 0.72 to 96, grams of mapharsen plus two episodes of artificial fever consisting of 5 hours each of a temperature of 40.5° C. (105° F.) to 41.2° C. (106° F.) were given.

3. Two cases of seronegative primary, six of seropositive primary and sixteen of secondary syphilis were treated.

4. Two cases of arsenic-resistant early syphilis responded with excellent effects to the treatment.

5. The period of observation in the group treated is too short to speak of final therapeutic results. The trend indicates results similar to those of other methods of massive arsenotherapy.

6. Eleven, or 45 plus per cent, have been lost from observation. Five of these are known to be in the Armed Forces.

7. The addition of fever therapy to massive arsenotherapy of early syphilis decreases the toleration of mapharsen but increases its therapeutic efficacy.

8. One instance each of three major complications was encountered, namely, encephalomyelitis, peripheral neuritis, and ninth-day erythema.

9. Mapharsen, 960 mg., when combined with artificial fever therapy and administered within a period of eight days, is not a safe dosage.

10. Liver function studies in eight of the patients by means of the hippuric acid test, indicated a depressed liver function during the treatment.

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## FATALITIES ASSOCIATED WITH ELECTRIC SHOCK TREATMENT OF PSYCHOSES

Alexander Gralnick, M.D., Central Islip, N. Y.  
In *ARCHIVES OF NEUROLOGY AND PSYCHIATRY*, 51;4;402, April, 1944

A small number of deaths due to electric shock have been reported in the literature since the introduction of electrotherapy. Kolb and Vogel estimated a death rate of 0.05 per cent in 7,207 cases, and Impastato and Almansi, a mortality rate of 0.8 per cent in 11,000 cases. As a rule, death is due to a defect in some organ other than the brain — usually the heart — which is aggravated by the convulsive treatment. However, some deaths are completely unexplainable. Impastato and Almansi, Ziegler and Ebaugh and his associates reported cases in which failure of the heart played the deciding role. Cash and Hoekstra and Ebaugh and associates recorded fatalities in cases in which curare was given before the electric convulsion.

Cash and Hoekstra stated that death came suddenly, about two hours after the treatment, and was probably of cardiac origin. Ebaugh and associates stated that immediate pulmonary arrest caused death.

No definite conclusion can be drawn with respect to the first case because of the absence of autopsy evidence. However, the acute nature of the patient's death, which followed so closely on her treatment, makes it logical to suspect some connection between the two events. It is possible that in this patient, as in a few of the cats studied by Alpers and Hughes, more extensive hemorrhages occurred in the hypothalamic region, sufficient to cause the hyperpyrexia and status epilepticus. The fact that the patient died one week after her last treatment speaks against this possibility, but the exact time of occurrence of hemorrhage after treatment is not known. Further, it is possible that, among other areas injured, the current produced damage to the cells in the region of the already labile heat-regulating center. These changes could have been associated with punctate hemorrhages and subsequent edema to produce the same result. While it is unwise to speculate too much about this case, I feel that one is only avoiding the issues involved if one disregards this death or attributes it merely to "excitement and exhaustion." Fatalities of this nature warrant continued study.

#### SUMMARY

Of 2 patients whose deaths were associated with electric shock treatment, the first died one week after her fourteenth treatment in a hyperpyretic state associated with status epilepticus. The second patient died two days after his second treatment. Autopsy in the second case disclosed evidence of cerebrovascular syphilis and other changes which were possibly due to the treatment itself. However, the alterations were not sufficient to account for death. A review of some of the pertinent literature indicates that the cause of death after electric shock treatment is still obscure. Selection of patients for treatment should not be indiscriminate, especially in the face of an unpromising prognosis. Electric treatment has attendant serious dangers and should not be given to patients with a history of vascular or cerebral disease.  
Central Islip State Hospital

MANUAL AND MECHANICAL RESUSCITATION IN EXPERIMENTAL ASPHYXIA  
Bernhard Steinberg, M.D., and Albert Dietz, Ph.D., Toledo, Ohio. In *THE JOURNAL OF LABORATORY AND CLINICAL MEDICINE*, 29;7;701, July, 1944

#### CONCLUSIONS

1. Resuscitation with high percentage of oxygen administered in acute asphyxia by a mechanical device used in our experiments resulted in a more rapid return of oxygen content in the arterial blood than in manual resuscitation.
2. Prolonged resuscitation with the mechanical device did not produce abnormal functional or tissue changes in animals.
3. Inhalation of carbon dioxide and oxygen or resuscitation with oxygen and rebreathing of expired air with the mechanical device resulted in a rapid elimination of carbon monoxide.
4. Mechanical resuscitation in acute asphyxia with the device employed in our experiments is a more efficient procedure than manual resuscitation.

#### SPRAINED ANKLES

John M. Wright, Captain (MC) U.S.N.R.  
Leon O. Parker, Commander (MC) U.S.N.R.  
and Thomas R. Lehan, Lieutenant Commander (MC) U.S.N.R. In *UNITED STATES NAVAL MEDICAL BULLETIN*, 42;6;1313  
June, 1944

1. The pathologic changes in sprained ankles are of two types: (a) Complete ligamentous rupture; (b) hematoma with slight ligamentous damage.
2. The differential diagnosis can be made only by very careful physical examination, or by anteroposterior x-ray during manipulation under anesthesia.
3. The best treatment for complete ligamentous rupture is the application of a walking cast for at least 6 weeks. Reconstructive surgery may be required in chronic cases.
4. The essential treatment for the simple sprained ankle without serious ligamentous injury is: (a) Early pressure bandage; (b) limitation of the hematoma and swelling by procaine injection with massage and early use; (c) contrast baths or intermittent traction and massage for persistent swelling and stiffness.

## PLANS OUTLINED FOR PROVIDING MEDICAL TRAINING AFTER WAR

### A. M. A. Council Presents Recommendations For Providing Educational Facilities For Returning Medical Officers

Outlining the educational facilities required after the war for returning medical officers, Victor Johnson, M.D., and F. H. Arestad, M.D., secretary and assistant secretary, respectively, of the Council on Medical Education and Hospitals of the American Medical Association, in a report in *The Journal* of the Association for September 23 present recommendations to the hospitals and medical schools of the country for meeting the educational challenge of the postwar period.

Their report is based on studies by the Council and returns on questionnaires sent to medical officers by the Committee on Postwar Medical Service and analyzed by Lieut. Col. Harold C. Lueth, M. C., Surgeon General's Liaison Officer in the headquarters of the Association.

"Meeting the requirements of returning medical officers for additional training," Drs. Johnson and Arestad say, "is a serious responsibility which will require the continued joint efforts of the Committee on Postwar Medical Service, the Council on Medical Education and Hospitals, the Surgeons General of the Army, Navy and Public Health Service, hospitals approved for internships and residencies, the American boards in the medical specialties, medical schools, state licensing boards, the Veterans Administration, foundations, county and state medical societies, and every institution capable of providing advanced training to physicians.

"On these physicians rests a large share of the responsibility for the quality of medical care to be provided the nation in the decades following the war. Many entered the services after an abbreviated internship. Others recognize the need for further education to equip themselves to return to their former practices or to new locations in which they desire to work. . . ."

*The Journal*, in an editorial in the same issue, discussing the report, says:

"The report suggests ways in which efforts may be applied to meet the need. Returns on the questionnaires sent to all medical officers are now being received in numbers which clearly re-

flect the widespread interest in continuation training. Analysis of an early random sample has already been published. Such data are indispensable for effective planning.

"Probably 10,000 medical officers will want house officer training of six months or more. Since demobilization will probably extend over some time, the number of additional places required will probably approximate 5,000 during the first year. Apparently most expansion will be required in otolaryngology, surgery, obstetrics and gynecology and ophthalmology, which may need to double their facilities. Expansions of 50 to 70 per cent seem to be indicated in urology, internal medicine, orthopedic surgery and pediatrics.

"Somewhat fewer officers are likely to seek shorter courses; about 9,000 officers will seek full time training of one to six months' duration. In 1943-1944 there were nearly 27,000 physicians enrolled in such courses. However, over 90 per cent of these were in sort courses of about a month. Apparently more than 90 per cent of those desiring review or refresher courses will seek training in somewhat longer courses of two to six months' duration. Many more courses of that duration will be required.

"In the light of the figures given, all institutions which can contribute to meeting the need are obligated to review their resources and prepare estimates of the additional facilities they can provide, to facilitate the achievement of the program outlined. . . .

"With continuing operation of the . . . [various agencies and groups concerned] there is every reason to expect that the needs will be met. Information now being collected from all educational institutions will be made available in the near future. . . ."

In summarizing their report, Drs. Johnson and Arestad say that the Council on Medical Education and Hospitals recommends, in order to meet the educational challenge of the postwar period, that:

Every hospital approved by the Council for internships should review its present and potential facilities and be prepared on request to submit to the Council estimates of the additional physicians it can accommodate as house officers in general medical training without jeopardizing high educational standards.

Every residency and fellowship hospital approved by the Council and acceptable to the various American boards should be prepared to submit to the Council and to the respective boards estimates of the additional physicians it can accommodate as house officers in already approved residencies.

Every internship hospital not now approved by the Council for residencies should be prepared to report on such facilities it may possess as may warrant consideration for approval of residencies, particularly in those specialties requiring most expansion.

Every approved residency hospital which has not yet developed its educational programs to full capacity should consider the organization of educational residencies in specialties not yet approved by the Council.

There should be developed in approved hospitals graduate externships to provide training of short duration to discharged officers not housed at the hospital but engaged in full time hospital work.

Medical schools, societies and foundations should plan especially to meet the probable demands for full time review and refresher courses of two to six months' duration.

Appropriate work in the basic medical sciences should be included in all postwar house officer training programs.

Consistent with national security and postwar military needs, teachers who are medical officers should be demobilized for the training of discharged officers before the prospective students.

Although modification of present estimates may be required when further questionnaires have been returned from medical officers, plans by all medical educational institutions for expanded postwar facilities should commence at once.

Full use should be made of the period between the surrender of Germany and that of Japan to provide educational training for as many officers as possible while still retained on active service.

## REPORT SUCCESSFUL TREATMENT OF A TYPE OF SINUS INFECTION

Penicillin Brings Recovery Of Patient With  
Cavernous Sinus Thrombophlebitis Which  
Until Recently Was Universally Fatal

The successful treatment of a type of sinus infection which until a few years ago was universally fatal is reported in *The Journal of the American Medical Association* for September 2 by W. M. Nicholson, M.D., and W. B. Anderson, M.D., Durham, S. C.

Cavernous sinus thrombophlebitis is a condition in which there is an infection, at the site of a thrombus or blood clot, of the wall of a vein in the cavernous sinus, a cavity containing blood, which is located at the base of the brain in back of the eye. It generally is secondary to some other infection such as a boil or infected hair follicle. Until 1937 only seven recoveries had been reported. Since the advent of the sulfonamides several instances of recovery have been reported but the fatality rate still has been quite high.

Drs. Nicholson and Anderson report the recovery of a patient from penicillin treatment after sulfadiazine had failed. He was a farmer in whom the condition developed after receiving a smart blow across the bridge of his nose on the right nostril of which was a small boil. Thirty-eight days after admission to the hospital the patient was discharged.

In the three years following the last war more people died from famine and preventable disease than were killed in the war itself, hence the importance attached to the present organization of postwar relief. The principal regional medical officer, British Ministry of Health, holds that the lives and health of millions in Europe as well as the physique and welfare of a generation to come depends on how well this preparatory work is done. He visualizes four principal problems — the provision of food, the supply of medical necessities, the control of such diseases as typhus, malaria, tuberculosis, and dysentery, and the reestablishment of the medical, hospital, and public health services in each country.—Ed. Jour. Royal Inst. Pub. Health & Hyg.

# Industrial Health

Committee On Industrial Health — Frederick W. Slobe, Chm., 2024 South Western Ave., Chicago, Frank P. Hammond, H. A. Vonachen, R. I. Barickman, C. O. Sappington, Milton H. Kronenberg.

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## PLACEMENT OF THE HANDICAPPED

The War Manpower Commission, in its endeavor to develop full utilization of the remaining industrial manpower for highly essential war industries, has developed several forms for appraising both the physical capacities of the worker and the characteristics of the worker. Such technique in placement is not only of value in utilizing the available manpower at present, but will be equally valuable during peace time in the placement of the returning veterans. Hence this material merits careful study.

1. Introduction: The Physical Capacities Appraisal Form, a copy of which is shown, is being introduced at the present time in the War Manpower Commission agencies of Illinois, Indiana, and Wisconsin as a coordinate part of a physical analysis technique designed to assist the War Manpower Commission in answering the question: "What specific jobs can a given individual do on a basis of his physical abilities?"

The use of this technique at the Richmond Shipyards of the Kaiser Shipbuilding Company is reported in "Current Developments Affecting the Physician's Role in Manpower Utilization"<sup>1</sup> and "Physical Demands and Capacities Analysis".<sup>2</sup> The experiments indicate that the technique of employing specialized forms to match

specific physical capacities and requirements leads to a more objective utilization of workers in accordance with their physical abilities.

In general, this technique matches specific physical job requirements with an individual's pattern of physical abilities. The comparison is made in terms of a list of 27 physical activities and 27 working conditions common to both the Physical Analysis Form derived from job analyses and the Physical Capacities Appraisal Form secured from a physician.

The Physical Demands Form is used to record the job requirements in terms of physical activities, working conditions and the hazards to which a worker is exposed. The Physical capacities Appraisal Form is designed to assist physicians to record their evaluation of a worker's physical abilities in terms of the degree to which he can perform certain physical activities and can withstand specified working conditions.

2. Use: The Physical Capacities Appraisal Form will either be brought by workers or sent by the War Manpower Commission to physicians in those cases in which it either is necessary for the War Manpower Commission to secure a statement of the physical abilities of an applicant for employment, or to transfer an injured or disabled worker. In most instances, the request for a physical capacities appraisal will arise when an applicant because of ill health or because his work is too strenuous applies to the local United States Employment Service office for a statement of availability permitting him to transfer to a job in a firm other than the one in which he is or has been recently employed.

The local United States Employment Service office upon receipt of the completed form from

1. "Current Developments Affecting the Physician's Role in Manpower Utilization," Clifford Kuh, M.D., Oakland, California, and Bert Hanman, San Francisco. Reprinted, with additions, from "The Journal of the American Medical Association," May 27, 1944.

2. "Physical Demands and Capacities Analysis," Division of Occupational Analysis and Manning Tables, Bureau of Manpower Utilization, War Manpower Commission, San Francisco. Published by Permanente Foundation, Oakland, California, May 1944. (a manual for physician, job analyst and placement officer).

WAR MANPOWER COMMISSION  
BUREAU OF MANPOWER UTILIZATION  
PHYSICAL CAPACITIES APPRAISAL FORM

Name ..... Age ..... Sex ..... Height ..... Weight .....

PHYSICAL ACTIVITIES

WORKING CONDITIONS

- |                      |                             |                                 |                                  |
|----------------------|-----------------------------|---------------------------------|----------------------------------|
| ..... 1. Walking.    | ..... 16. Throwing.         | ..... 51. Inside.               | ..... 66. Mechanical hazards.    |
| ..... 2. Jumping.    | ..... 17. Pushing.          | ..... 52. Outside.              | ..... 67. Moving objects.        |
| ..... 3. Running.    | ..... 18. Pulling.          | ..... 53. Hot.                  | ..... 68. Cramped quarters.      |
| ..... 4. Balancing.  | ..... 19. Handling.         | ..... 54. Cold.                 | ..... 69. High places.           |
| ..... 5. Climbing.   | ..... 20. Fingering.        | ..... 55. Sudden temp. changes. | ..... 70. Exposure to burns.     |
| ..... 6. Crawling.   | ..... 21. Feeling.          | ..... 56. Humid.                | ..... 71. Electrical hazards.    |
| ..... 7. Standing.   | ..... 22. Talking.          | ..... 57. Dry.                  | ..... 72. Explosives.            |
| ..... 8. Turning.    | ..... 23. Hearing.          | ..... 58. Wet.                  | ..... 73. Radiant energy.        |
| ..... 9. Stooping.   | ..... 24. Seeing.           | ..... 59. Dusty.                | ..... 74. Toxic conditions.      |
| ..... 10. Crouching. | ..... 25. Color vision.     | ..... 60. Dirty.                | ..... 75. Working with others.   |
| ..... 11. Kneeling.  | ..... 26. Depth perception. | ..... 61. Odors.                | ..... 76. Working around others. |
| ..... 12. Sitting.   | ..... 27. Working speed.    | ..... 62. Noisy.                | ..... 77. Working alone.         |
| ..... 13. Reaching.  | ..... 28.                   | ..... 63. Adequate lighting.    | ..... 78.                        |
| ..... 14. Lifting.   | ..... 29.                   | ..... 64. Adequate ventilation. | ..... 79.                        |
| ..... 15. Carrying.  | ..... 30.                   | ..... 65. Vibration.            | ..... 80.                        |

Blank space = Full capacity.

✓ = Partial capacity.

0 = No capacity.

Details of Physical Activities:

May lift, carry, handle, push, or pull up to ..... pounds ..... times per hour.

May engage in activities numbered ..... up to  $\frac{3}{4}$  of work period.

May engage in activities numbered ..... up to  $\frac{1}{2}$  of work period.

Sight .....

Hearing .....

Others .....

Details of Working Conditions .....

Diagnosis .....

Date ....., 194.....

the applicant's physician will match the physical capacities of the applicant with the physical demands of the job which he has left or the job to which he is to be referred. A similar comparison will be made of the environmental conditions under which the applicant can work with the working conditions actually existing on the job.

3. Instructions: *Physical Activities and Working Conditions*: In filling out these sections of the form the physician should check (✓) those physical activities for which the appli-

cant has a limited capacity and zero (0) those physical activities for which the applicant is completely incapacitated. A similar system should be followed in marking the working conditions. Thus, a check would indicate that the applicant should not be subjected to the particular working condition during the entire work period and a zero would indicate that the applicant should not be exposed to the particular working condition at any time.

Absence of a check or zero indicates that there is no restriction upon the physical activity or working condition.

WAR MANPOWER COMMISSION  
BUREAU OF MANPOWER UTILIZATION

WORKER CHARACTERISTICS FORM

Job Title ..... Schedule No. ....

Indicate the amount of each characteristic required of the worker in order to do the job satisfactorily by putting an X in the appropriate column. Following are the definitions of each level:

- O — The characteristic is not required for satisfactory performance of the job.
- C — A medium to very low degree of the characteristic is required in some element or elements of the job.
- B — An above-average degree of the characteristic is required, either in numerous elements of the job or in the major or most skilled element.
- A — A very high degree of the characteristic is required in some element of the job.

When in doubt between A and B, rate B; when in doubt between B and C, rate B; when in doubt between C and O, rate C. If some characteristic not on this list is required, write it in, rate it, and define it briefly at the bottom of the form.

AMOUNT				CHARACTERISTICS REQUIRED	AMOUNT				CHARACTERISTICS REQUIRED
O	C	B	A		O	C	B	A	
....	....	....	....	1. Work rapidly for long periods.	....	....	....	....	26. Arithmetic computation.
....	....	....	....	2. Strength of hands.	....	....	....	....	27. Intelligence.
....	....	....	....	3. Strength of arms.	....	....	....	....	28. Adaptability.
....	....	....	....	4. Strength of back.	....	....	....	....	29. Ability to make decisions.
....	....	....	....	5. Strength of legs.	....	....	....	....	30. Ability to plan.
....	....	....	....	6. Dexterity of fingers.	....	....	....	....	31. Initiative.
....	....	....	....	7. Dexterity of hands and arms.	....	....	....	....	32. Understanding mechanical devices.
....	....	....	....	8. Dexterity of foot and leg.	....	....	....	....	33. Attention to many items.
....	....	....	....	9. Eye-hand coordination.	....	....	....	....	34. Oral expression.
....	....	....	....	10. Foot-hand-eye coordination.	....	....	....	....	35. Skill in written expression.
....	....	....	....	11. Coordination of both hands.	....	....	....	....	36. Tact in dealing with people.
....	....	....	....	12. Estimate size of objects.	....	....	....	....	37. Memory of names and persons.
....	....	....	....	13. Estimate quantity of objects.	....	....	....	....	38. Personal appearance.
....	....	....	....	14. Perceive form of objects.	....	....	....	....	39. Concentration amidst distractions.
....	....	....	....	15. Estimate speed or moving objects.	....	....	....	....	40. Emotional stability.
....	....	....	....	16. Keeness of vision.	....	....	....	....	41. Work under hazardous conditions.
....	....	....	....	17. Keeness of hearing.	....	....	....	....	42. Estimate quality of objects.
....	....	....	....	18. Sense of smell.	....	....	....	....	43. Unpleasant physical conditions.
....	....	....	....	19. Sense of taste.	....	....	....	....	44. Color discrimination.
....	....	....	....	20. Touch discrimination.	....	....	....	....	45. Ability to meet and deal with public.
....	....	....	....	21. Muscular discrimination.	....	....	....	....	46. Height.
....	....	....	....	22. Memory for details (things).	....	....	....	....	47. Weight.
....	....	....	....	23. Memory for ideas (abstracts).	....	....	....	....	48. ....
....	....	....	....	24. Memory for oral directions.	....	....	....	....	49. ....
....	....	....	....	25. Memory for written directions.	....	....	....	....	50. ....

DEFINITIONS FOR ADDITIONAL CHARACTERISTICS:

PHYSICAL DEMANDS FORM

Job Title .....Occupational Code .....

Dictionary Title .....

Firm Name & Address .....

Industry .....Industrial Code .....

Branch .....Department .....

Company Officer .....Analyst .....Date .....

PHYSICAL ACTIVITIES			WORKING CONDITIONS	
..... 1. Walking.	.....16. Throwing.	.....51. Inside.	.....66. Mechanical hazards.	
..... 2. Jumping.	.....17. Pushing.	.....52. Outside.	.....67. Moving objects.	
..... 3. Running.	.....18. Pulling.	.....53. Hot.	.....68. Cramped quarters.	
..... 4. Balancing.	.....19. Handling.	.....54. Cold.	.....69. High places.	
..... 5. Climbing.	.....20. Fingering.	.....55. Sudden temp. changes.	.....70. Exposure to burns.	
..... 6. Crawling.	.....21. Feeling.	.....56. Humid.	.....71. Electrical hazards.	
..... 7. Standing.	.....22. Talking.	.....57. Dry.	.....72. Explosives.	
..... 8. Turning.	.....23. Hearing.	.....58. Wet.	.....73. Radiant energy.	
..... 9. Stooping.	.....24. Seeing.	.....59. Dusty.	.....74. Toxic conditions.	
.....10. Crouching.	.....25. Color vision.	.....60. Dirty.	.....75. Working with others.	
.....11. Kneeling.	.....26. Depth perception.	.....61. Odors.	.....76. Working around others.	
.....12. Sitting.	.....27. Working speed.	.....62. Noisy.	.....77. Working alone.	
.....13. Reaching.	.....28.	.....63. Adequate lighting.	.....78.	
.....14. Lifting.	.....29.	.....64. Adequate ventilation.	.....79.	
.....15. Carrying.	.....30.	.....65. Vibration.	.....80.	

DETAILS OF PHYSICAL ACTIVITIES:

The definitions used are the commonly accepted definitions of the physical activities and working conditions.

*Details of Physical Activities:* The section headed Details of Physical Activities is used to secure more definite information concerning the physical activities which are partially restricted for the applicant.

*May Lift, Carry, Handle, Push or Pull Up to Pounds Times Per Hour:* In the line beginning "May lift, carry, handle, push or pull up to ..... pounds ..... times per hour," the physician should enter the maximum number of pounds and the maximum number of times per hour when there is some restriction on the activities listed in this line.

*May Engage in Activities Numbered ..... Up to 2/3 (1/3) of Work Period:* The lines "May engage in activities numbered ..... up to 2/3 of work period" and "May engage in activities numbered ..... up to 1/3 of work period," are used for physical activities for which restrictions may be expressed in terms of time. In general, these are handling, climbing, jumping, running, walking, standing, stooping, crouching, kneeling, crawling, sitting and finishing. If any of the above items are checked, the physician should note the number of the item in the appropriate line if a time limit is applicable.

The WMC makes the following assumptions in using these sections: (1) an individual who cannot engage in a particular physical activity for at least 1/3 of the work period, should not undertake work involving that activity; (2) an individual who can perform a given physical activity for 2/3 of the working day, can generally work full time in a job involving that activity.

If these assumptions are invalid in the particular case, the physician should note that fact on the line marked "Others."

*Sight and Hearing:* The lines beginning "Sight" and "Hearing" should be used to indicate restrictions in the use of those faculties.

*Others:* The line beginning "Others" may be employed to present additional information to guide the placement officer and to record general limitations upon the applicant's activities.

Use of the line for the latter purpose will obviate the necessity of checking those physical activities which cannot be performed because of

a general limitation. If for example, an applicant can only do sedentary work, such information is entered on this line. It would not be necessary then to mark those physical activities which are indicative of the fact that the applicant can only do sedentary work.

*Details of Working Conditions:* The section headed Details of Working Conditions is used to list specific environmental factors to which the applicant should not be exposed. Usually, only two items in the "Working Conditions" section require further explanation: Item 74, Toxic Conditions, and Item 73, Radiant Energy.

*Diagnosis:* Since this technique of matching physical demands and physical capacities is based upon the use of the specific factors listed on the form, the physician may omit the diagnosis if it appears desirable to withhold this information.

4. Advantages of Form: — Region VI of the War Manpower Commission believes that the introduction of this form and the use of the physical analysis technique will offer the following advantages:

1. Emphasis on the specific pattern of physical capacities affords a positive approach to the problem of selective placement of handicapped workers.
2. The Physical Capacities Appraisal Form preserves the confidential nature of the physician's diagnosis.
3. The technique takes into account both the physical and environmental factors which may limit the working capacities of an individual.
4. The use of this form gives assurance that the translation of clinical data into physical capacities is made by physicians.

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## SULFONAMIDES ARE OF NO VALUE IN TREATMENT OF POLIOMYELITIS

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Cleveland Doctor, In Letter To The Journal,  
Says Doctors Should Be Warned Against  
Their Use For Infantile Paralysis

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The sulfonamide drugs are of no value in the treatment of infantile paralysis and physicians should be warned against their use for this disease, John A. Toomey, M.D., Cleveland, declares in a letter published in *The Journal of the American Medical Association* for September 2. Dr. Toomey says:

"I feel that physicians should be warned against the use of sulfonamide drugs in the treatment of poliomyelitis.

"It has been noticed clinically that when paralyzes of the intestine and urinary bladder persist there are apt to be extension of the . . . paralyzes. When urinary retention was produced in animals (monkeys) by the use of sulfonamide compounds, drugs which produced ureliths [kidney stones] and blockage of the ureters [urinary passages], a more massive disease was produced two or three days sooner than that which appeared in controls simultaneously injected with poliomyelitis virus.

"Rosenow had the same experience with sulfapyridine at the Mayo Clinic and reported that

this drug produced an additive neurotoxic [poisonous effect on the nerves] effect.

"Recently an explosive epidemic of poliomyelitis occurred in a small town of northern Ohio. The number of patients that developed severe paralysis seemed out of proportion to the normal expectancy. Most of these patients had received sulfonamide drugs (information received from Mrs. Louise Bowers, health officer, Perrysburg, Ohio).

"Recently a 12 year old girl had signs of meningeal irritation [of the membrane enveloping the brain and spinal cord], but no sign of any muscle involvement save in one leaf of the soft palate. The reflexes were hyperactive; the child was not acutely ill. . . . The prognosis seemed good whether the condition was poliomyelitis or meningitis. Sulfadiazine was started. Twelve hours later and after 12 Gm. of sulfadiazine had been given, a massive extension of paralysis suddenly developed, the throat muscles and intercostals [muscles between the ribs] all becoming affected within an hour. This sudden explosive extension in an otherwise nearly normal patient had not been our previous experience in this type of case.

"The sulfonamide drugs are of no value in poliomyelitis. Nor does penicillin help much in our experience, although we have not noticed that it does harm."

# News of the State

## PERSONALS · COMING EVENTS · MARRIAGES · DEATHS

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### ★ WAR SERVICE ACTIVITIES ★ COOK COUNTY

Capt. A. E. Ablaza and Capt. Samuel Levin, members of the Chicago Medical Society, had both practiced in Chicago for 16 years but never met until they attended the field medical service school in Carlisle, Pa. in 1943. They are now in France and frequently find themselves in the roles of country doctors when French farmers appear at their medical tent for treatment and insist on paying with tomatoes, eggs and other produce. Capt. Levin reports, according to the Chicago Tribune of September 6, "When we have a lull in treating American wounded, the French line up and beg us to attend their ills. We take care of as many as we can."

Capt. Walter Block, member of the Chicago Medical Society, a battalion surgeon with the American Rangers has been awarded the Silver Star. He toiled for 66 hours under a concentrated hail of German gunfire during the initial invasion of the French Coast to evacuate 50 Yank casualties.

### DEWITT COUNTY

H. L. Meltzer of Clinton who has been stationed in Hawaii since before the attack on Pearl Harbor just returned to his post after a furlough, his first since entering the service.

### JASPER COUNTY

G. B. Brown of Newton has been commissioned a Captain in the United States Army Medical Corps and has reported to a hospital at Sheridan, Wyoming. He formerly was connected with the Peoria Health Department and at one time was managing officer of Jacksonville State Hospital.

### KANE COUNTY

Lt. (j.g.) Robert M. Kennedy, former practicing physician and obstetrician in Elgin, ship's

doctor on the destroyer Warrington, refused to abandon patients who could not be moved, and went down with the ship during the September 13 hurricane in the Atlantic. He was born in 1910, graduated from Northwestern 1937, married, had two children. He located in Elgin about May, 1942 and was commissioned in the Navy on November 29, 1943. He served as a missionary in Ceylon for several years before locating in Elgin.

### LEE COUNTY

Dr. Samuel S. Reinglass, Dixon, has resigned as health officer of district number three to enter military service.

### McDONOUGH COUNTY

Capt. C. L. Weston of Macomb who was with the army in North Africa, the Anzio Beachhead and on up the "boot" reports some harrowing experiences. He has been with a field hospital and on the Anzio Beachhead was assisting another soldier with an operation when the Germans bombed the Red Cross hospital and the nurse assisting with the operation was killed.

### PEORIA COUNTY

At the present time, sixty-three members of the Peoria Medical Society are in the service of their country. This does not include several doctors from the Peoria area who were not members of the Society and three members who received medical discharges.

Lowell Kannapel has received a promotion and now wears the Gold Oak Leaf of a Major. Henry Wilson recently received his promotion to Captain.

### ROCK ISLAND COUNTY

Francis X. Meier of Milan has been commissioned a first lieutenant in the army medical corps and reported on October 6th to Carlisle Barracks, Pa. Dr. Meier who graduated from

the University of Munich, Germany in 1936 came to America in 1937. He received his Illinois license in 1939 and served as a resident physician at Moline Public Hospital before beginning his Milan Practice in July 1939. He is a member of the Rock Island Medical Society.

### WINNEBAGO COUNTY

Laying aside his uniform after nearly two years of military service, Captain Bernard E. Bolotoff of Rockford has opened an office in the Mead Building, Rockford for the general practice of medicine. He was retired due to physical disabilities caused by complications that developed during an illness contracted while serving with the army medical corps in the central and southwest Pacific.

### WOODFORD COUNTY

Major Arnold Claycomb MC AUS formerly of Minonk is now Chief of Surgery, Bowman AHB Station Hospital, Bowman AAB, Louisville, Kentucky.

Colonel Robert H. Kennedy, former Director of Surgery at Beekman Hospital, New York City, and attending surgeon at the New York Post-Graduate Hospital, has recently been appointed chief of surgical service at Mayo General Hospital, according to an announcement by Colonel H. L. Krafft, commanding officer. Colonel Kennedy, a veteran of World War I succeeds Colonel Emery Neff (of Moline, Illinois) former surgical chief, who left for treatment Percy Jones General Hospital.

While in Washington, Captain Marian Grimes, ANC, spoke over radio station WTOP on her experiences in Australia and New Guinea. Her broadcast was in connection with the Army Nurse Corps recruiting program. Captain Grimes, who has been on temporary duty in the Office of the Surgeon General, has now returned to her permanent station at Fort Sheridan, Illinois.

## GRADUATE MEETINGS AND COURSES

### POST GRADUATE CONFERENCE

Orlondon Hotel — Decatur

October 26, 1944

All doctors of central Illinois are invited to a special scientific program which has been planned to bring the latest in timely subjects to their attention. No registration fee, but reservations for luncheon and dinner should be made with Dr. Wallace Muncie, Decatur, Secretary of the Macon County Medical Society.

12:30-1:30 P.M.—Complimentary luncheon

1:30-2:15 P.M.—“Recognition and Management of Coronary Disease”

O. P. J. Falk, M.D.—St. Louis

2:15-3:00 P.M.—“Industrial Surgery”

Frederick W. Slobo, M.D.—Chicago

3:00-3:45 P.M.—“The Present Day Treatment of Syphilis of the Central Nervous System”

Clarence A. Neymann, M.D.—Chicago

3:45-4:30 P.M.—“Amebiasis”

Paul L. Shallenberger, Major MC, Chief Gastroenterology Section Gardiner General Hospital, Chicago

4:30-5:15 P.M.—Round Tables led by the above speakers as follows:

“Diagnosis & Treatment of Heart Conditions Occurring After Middle Age”—

M. E. Rose, Decatur—Chairman

“Industrial Surgery”—Dwight Pence, Decatur—Chairman

“Child Behavior Problems”—Scott Wilkinson, Decatur—Chairman

“Tropical Diseases”—O. O. Stanley, Decatur—Chairman

6:00 P.M.—Dinner—\$1.50 per plate

7:30 P.M.—“Neuropsychiatric Problems and the War”

Lt. Col. W. P. Richardson, MC Chief Neuropsychiatric Section of the Gardiner General Hospital, Chicago

The following War-Time Graduate Medical Meetings under the auspices of the American Medical Association, American College of Surgeons and the American College of Physicians were held in Illinois on October 4th.

Mayo General Hospital—“Blood Dyscrasias”

Louis R. Limarzi and Howard L. Alt

Camp Ellis—“Orthopedic Problems of General Interest”

Edward L. Compere and Paul B. Magnuson  
Chanute Field—“Gall Bladder and Liver Disease”

Andrew C. Ivy and Walter L. Palmer

The Institute of Medicine of Chicago will hold its postgraduate assembly, November 1-2, at the Palmer House. The program will cover “Nervous and Mental Diseases and War” and will be devoted to phases of neurology, psychiatry and neurosurgery that are of particular importance to clinicians, specialists and lay workers. There will be a registration fee of \$5 for all except those in uniform. Among the speakers will be:

Dr. Samuel W. Hamilton, Washington, D. C., Psychiatry Before World War II.

Dr. Winfred Overholser, Washington, Civilian Mental Health in Wartime.

Dr. C. Charles Burlingame, Hartford, Conn., Present and Future Effects of War Neuroses.

Dr. Bernard J. Alpers, Philadelphia, War and Nervous Disorders.

Dr. Cobb Pilcher, Nashville, Tenn., Civilian Advances and Investigations in Neurosurgery During the War.

Col. William C. Menninger, M. C., The Mentally Unfit: Detection, Elimination and Disposal.

Lieut. Col. Roy R. Grinker, Psychiatric Disorders in Combat Crews Overseas and in Returnees.

Dr. Edwin G. Zabriskie, New York, Nervous Disorders in the Armed Forces.

Capt. Winchell M. Craig, M. C., Injuries to the Central Nervous System.

Dr. Howard C. Naffziger, San Francisco, Injuries to the Peripheral Nervous System.

Luther E. Woodward, Ph.D., New York, Social Readjustment of Returning Veterans.

Lieut. Comdr. Howard P. Rome (MC), The War and Its Psychiatric Problems.

Dr. David J. Margolis, Chicago, Compensation Laws and the Veterans Administration.

Dr. Sidney I. Schwab, St. Louis, Residuals of Neuropsychiatric Disorders.

Dr. Ernest Sachs, St. Louis, Residuals of Neurosurgical Disorders.

The program will include a series of panel discussions on war neuroses or battle fatigue? war injuries to the nervous system, does war modify the behavior of the civilian population? and who are the mentally unfit for military service? The first evening session will include a neuropsychiatric "information please" program with Dr. Foster Kennedy, New York, as moderator. On the second evening Dr. Edward A. Strecker, Philadelphia, will deliver the seventeenth annual Pasteur lecture of the institute on "War Psychiatry and Its Influence on Postwar Psychiatry and Civilization."

The American College of Physicians is holding a series of six Post-Graduate Courses in various sections of the country. Course Number 5 on Special Phases of Internal Medicine will be held in Thorne Hall of Northwestern University, Chicago October 23-November 4 and will be limited to a registration of sixty. This course offers an unusual opportunity for physicians to familiarize themselves with recent developments in various fields of Internal Medicine. The faculty of 108 men includes many of the most outstanding physicians, not only in Chicago, but also from other parts of the country. Where possible, clinical discussions will be illustrated by demonstration of patients. The Course will close with a Regional Meeting of the American College of Physicians at the Drake Hotel, Chicago on November 4.

### ILLINOIS PHYSICIANS INVITED TO VISIT TUMOR CLINICS

During the past twenty years great advancement has been made in educating the public regarding the dangers of cancer. The intelligent layman now knows that accessible cancer of some types can be cured if treated early and adequately. This is a direct challenge to the medical profession. In order that members of the Illinois State Medical Society may avail themselves of opportunities to learn something concerning the modern methods of diagnosis and treatment of this disease, the Cancer Committee of the Chicago Medical Society has asked each of the

Tumor Clinics in Chicago that have been approved by the American College of Surgeons if they will permit members of the Society to visit their clinics in order to learn new methods of procedure in diagnosis and treatment. The following clinics have stated that they will welcome members to their session at any time.

Cancer Clinic of Cook County Hospital: 2 P. M. Friday afternoons. "If the doctors so desire, they may be permitted to visit our X-Ray Cancer Therapy Department on the same day to observe the results of this form of treatment."

Cancer Clinic of The Little Company of Mary Hospital: 10:00 A. M., Saturday mornings. "We would appreciate having visiting physicians make an appointment before coming so that we might advise them on the number and variety of cases to be presented."

Mercy Hospital Institute of Radiation Therapy: 8 to 10 A. M., Tuesdays and Thursdays, 8 to 9 A. M.

Tumor Clinic of Michael Reese Hospital: 1:30 P. M., each Tuesday in the Mandel Clinic Building.

Tumor Clinic of Mount Sinai Hospital: 11 A. M. on the last Saturday of the month.

Patterson Tumor Clinic of Northwestern University Medical School: 2 to 4 P. M. each Monday in the clinic rooms of the Medical School. "From 4 to 5 following the clinic there is a lecture and demonstration to a division of the senior class. Physicians are welcome to attend these sessions."

Tumor Clinic of Norwegian-American Hospital: 11 A. M. on the second and fourth Thursday of each month.

Cancer Clinic of the Presbyterian Hospital: 12 M. every Wednesday in the x-ray therapy department of the hospital.

Cancer Clinic of Provident Hospital: Diagnostic clinic at 11 A. M. on the second and fourth Thursday of each month, first floor, Main Building, east end of east wing; Follow-up clinic, first Tuesday of each month, 2 P. M., second floor of the Clinic Building.

Tumor Clinic of the University of Chicago: "Irradiation therapy is being conducted all day, every day, except Saturday afternoons and Sundays; Out Patient Department, 2 to 5 P. M., Mondays, Wednesdays and Fridays."

### SPEAKERS FOR SCIENTIFIC MEETINGS

The Scientific Service Committee of the Illinois State Medical Society has prepared a new list of suggested speakers and subjects for scientific programs. The list has been sent to presidents and secretaries of county societies. Copies are available in the office of the Committee at 30 North Michigan Avenue, Chicago 2. If you are responsible for any medical programs during the year, this list may offer some excellent ideas and material.

## GENERAL

### CHAMPAIGN COUNTY

Dr. L. E. Messman, formerly of Onargo, has joined the staff of Carle Memorial Hospital Clinic, as of September 1. He spent two years and seven months in the army medical corps, serving overseas. He was given a medical discharge in November, 1943 and has been in the Presbyterian Hospital, Chicago, since that time doing special work in obstetrics and gynecology. He is a graduate of the University of Illinois College of Medicine and interned at the Lutheran Deaconess Hospital, Chicago. He was also a resident at Presbyterian Hospital.

### COLES COUNTY

Dr. L. A. Neal of Mattoon has withdrawn as Republican candidate for coroner of Coles County and has gone to Albuquerque, N. M. for his health.

### COOK COUNTY

Dr. Orlen J. Johnson, Assistant Secretary of the Council on Industrial Health of the American Medical Association, Chicago has resigned to enter a residency in surgery at St. Luke's Hospital, effective September 29. Dr. Johnson graduated at the University of Michigan Medical School, Ann Arbor, in 1930.

W. B. Saunders has announced to the medical profession the appointment of Mr. Willard C. Shepard as Art Editor. He is distinguished as one of the foremost medical artists in America. Mr. Shepard has been Medical Artist to Rush Medical College and to the Presbyterian Hospital since 1916, and a general faculty member of the Department of Illustration of the University of Illinois College of Medicine for the past several years.

Dr. Rosanna N. McKenney, a member of the staff of St. Francis Hospital, Evanston, was named as new physician for the district 76 schools, succeeding Dr. Rose Jirinec, who resigned last spring to devote her time to private practice. Dr. McKenney, who graduated from the school of medicine of Loyola University, has been practicing on the North Shore for fifteen years. She has been girls' physician at New Trier High School for many years and will continue that work in addition to her duties in Evanston.

Dr. J. J. Moore, President of the Chicago Medical Society and Treasurer of the American Medical Association presided at the Assembly Dinner in connection with the International Medical Assembly meeting at the Palmer House on October 19th. He introduced Brigadier General Fred W. Rankin, Consulting Surgeon, Office

of the Surgeon General and Dr. Walter H. Judd, House of Representatives, Washington, D. C. and Minneapolis, Minnesota.

On October 12 a memorial convocation for Dr. Sanford R. Gifford, professor and chairman of the department of ophthalmology at Northwestern University Medical School, was held at Thorne Hall on the downtown campus of Northwestern University at 4:30. Dr. Irving S. Cutter presided at the convocation and Anan Raymond, LL.B., spoke.

Dr. Amedeo S. Marrazzi has resigned as professor and head of the department of pharmacology, Loyola University School of Medicine, effective November 15 to accept a similar position at Wayne University College of Medicine, Detroit. Dr. Marrazzi graduated at the Bellevue Hospital Medical College in 1928 and has been identified with Loyola University since 1943.

Announcement has been made of the retirement of Dr. Julius Hess as Professor and Head of the Department of Pediatrics at the University of Illinois. He has served the School of Medicine for 30 years and has reached the compulsory retirement age.

A gold key in recognition of outstanding contributions and service to the science of physical medicine was awarded to Dr. Herman L. Kretschmer of Chicago at the 23rd Annual Convention of the American Congress of Physical Therapy, September 7th in Cleveland.

A legacy estimated at \$50,000 was left to the Shriners Crippled Children's Hospital of Chicago by the late C. Alison Curry, a retired court reporter.

The Forty-Fourth Annual Dinner of the Chicago Surgical Society and the Sixteenth Annual Arthur Dean Bevan Lecture was presented by Dr. Howard C. Naffziger of San Francisco, California on the evening of October 6th in Chicago. The title of Dr. Naffziger's lecture was "Exophthalmos and the Thyroid: Experiences with Major Surgery of the Orbit."

The July issue of *Gastroenterology*, the official journal of the American Gastroenterological Association, was dedicated to Dr. Anton J. Carlson, recipient of the association's Friedenwald Medal for 1944 and emeritus professor of physiology, University of Chicago School of Medicine, since 1940. In addition to carrying scientific material, the journal includes editorial tributes to Dr. Carlson.

The will of Mrs. Anna L. Bevan, widow of Dr. Arthur Dean Bevan, disposes of \$550,000, most of which will go into a trust fund benefiting the Presbyterian Hospital of Chicago, where her husband was for many years chief surgeon. Mrs. Bevan died July 31. Three bequests to charity include \$10,000 to the Country Home for Convalescent Crippled Children, West Chicago, \$5,000 to the Visiting Nurse Association and \$5,000 to the Ridge Farm Preventorium of Lake Forest. In addition there is a provision for \$10,000 to set up the Arthur Dean Bevan Endowment for the Hospital Association of Lake Forest, the income to be used perpetually for teaching and research in the hospital's surgery department. The residue of the estate, after other bequests, will approximate \$458,000 and will go into a trust fund with the First National Bank of Chicago as trustee, the income to go perpetually to the Presbyterian Hospital for teaching and research in surgery. After the death of one beneficiary of the will, the money provided will go to the Presbyterian Hospital. The trust also will be known as the Arthur Dean Bevan Endowment Fund.

As soon as building restrictions are lifted, G. D. Searle and Company, manufacturer of pharmaceuticals, plans to construct at least one additional building on a recently acquired 51½ acre tract in Skokie which adjoins its present property and on which are located the Searle Research and Manufacturing Laboratories. It is said that the increased research and manufacturing facilities are necessary in view of the continuing rapid expansion of the firm's business, which the present laboratories, completed in March 1942, can no longer accommodate.

Dr. Jean Paul Fernel was named August 21 in a criminal information filed before Federal Judge Michael L. Igoe that charged twenty-three counts of violating the Federal Food, Drug and Cosmetic Act. The action alleged that Dr. Fernel had engaged in a mail order business "purveying medical preparations that the government charges are misbranded," according to newspaper reports. It is further stated that Dr. Fernel was found guilty last November of similar charges (THE JOURNAL, Nov. 27, 1943, p. 849), was sentenced to one year in the county jail and was fined \$500. He is said to be now out on bail pending an appeal to the U. S. Circuit Court of Appeals.

Amante Rongetti, whose license to practice medicine was revoked in 1932 when he was sent to the state prison at Joliet following his conviction of manslaughter, was sentenced August 30 to three months in the county jail for practicing medicine without a license and fined \$500.

Newspapers reported that the sentence was imposed by Judge Russell W. Keeney of Du Page County sitting in county court. Rongetti is also reported to have served a term in the federal penitentiary at Leavenworth for violating the federal narcotic act. At the trial, June 14, Rongetti was found guilty by a jury after an inspector for the state department of registration and education testified that he had prescribed distilled water for a "supposed kidney ailment." Ray E. Lane, Rongetti's attorney, said he would appeal.

Dr. Raymond B. Allen, dean, University of Illinois College of Medicine, announced July 31 a number of changes on the medical faculty, among others, effective September 1:

Dr. Julius Hays Hess, who has been a member of the faculty for thirty years, retiring on account of age, as professor and head of the department of pediatrics. He will carry the title professor emeritus.

Dr. Henry George Poncher promoted to professor and head of the department of pediatrics to succeed Dr. Hess.

Dr. Milan Vaclav Novak to professor and head of the department of bacteriology and public health.

Dr. Yngve Joranson to associate professor emeritus, department of anatomy.

Dr. Aaron Arkin to professor, department of medicine (Rush).

Dr. Richard Leos Jenkins to acting head and associate professor of psychiatry.

Chester William Darrow, Ph.D., to associate professor, department of criminology, social hygiene and medical jurisprudence.

Dr. Norris Julius Heckel, to associate professor, department of surgery.

Dr. John Michael Dorsey to assistant professor, department of surgery (Rush).

Dr. Noah D. Fabricant to assistant professor, department of laryngology, rhinology and otology.

Dr. Edward A. Piszczek to assistant professor, department of bacteriology and public health.

James Clarence Plagge, Ph.D., to assistant professor, department of anatomy.

Dr. John Van Prohaska to assistant professor, department of surgery.

Dr. Anita E. Rapoport to associate and associate anesthetist, department of surgery and Research and Educational Hospital.

Dr. Boris S. Ury to associate, department of psychiatry.

## CRAWFORD COUNTY

L. P. Sloan of Oblong is the father of three sons who are physicians and his only daughter recently married a physician, making a total of five in the profession of medicine.

## EDGAR COUNTY

Dr. Charles A. McClelland who came from Cleveland, Ohio to take care of the department of internal medicine at the Paris Hospital, Paris, Illinois is returning to Cleveland after two years to go into private practice.

## GREENE COUNTY

The regular quarterly meeting of the Greene County Medical Society held in White Hall on

September 8th was addressed by Dr. George Vernon of the Palmer Sanatorium of Springfield who spoke on Pulmonary Tuberculosis. Dentists of Greene County were guests.

#### MACON COUNTY

Plans are under way to establish a memorial fund in honor of the late Dr. Wilbur Stuart Wood, Decatur. The memorial will take the form of a fund to be used to purchase orthopedic equipment in the Decatur and Macon County Hospital, where Dr. Wood had been active for many years. Dr. Wood died August 7.

#### MADISON COUNTY

Dr. A. J. Kotkis of St. Louis spoke on "Some Problems of Physical Medicine in the Field of Therapeutics" at the September 1st meeting of the Madison County Medical Society held in Granite City.

#### SANGAMON COUNTY

Dr. J. A. Stocker joined the staff of St. John's Sanatorium, Springfield, as Assistant Medical Advisor on June 1, 1944. Dr. Stocker, a native Minnesotan, received his medical education at the University of Minnesota. He spent a year in general practice in that state, and thereafter joined the staff of the Missouri State Sanatorium for Tuberculosis at Mount Vernon in 1935. At the time of his resignation, Dr. Stocker was superintendent of the Missouri Sanatorium.

#### WILL-GRUNDY COUNTY

Doctors of Will-Grundy counties meet every Friday noon at 12:15, Louis Joliet Hotel, Joliet for luncheon and a scientific program. Speakers for these meetings are supplied by the Scientific Service Committee of the Illinois State Medical Society and subjects cover the various fields of medicine and surgery.

#### CANCER SOCIETY CHANGES ITS NAME

Indicating its broader and more active program, the American Society for the Control of Cancer, which since 1913 has been engaged in educating the public concerning that disease, now announces a legal change of its name. The new name, *American Cancer Society*, reflects the decision made by the Board of Directors that any and all matters connected with the fight against cancer are of immediate and active concern to the Society.

The Society will greatly expand and extend its efforts not only to educate the public but to obtain from the public funds for cancer research, diagnosis and treatment, and education. The Society will not itself conduct any research or own or operate any hospitals, clinics or labora-

tories. It will, however, raise and distribute funds to aid such institutions and projects as may be approved by its Board of Directors.

At the same time the Society announces a change also in the name of its lay educational organization. This since its inception in 1936 has been called the Women's Field Army. It is now to be known as *The Field Army*, in recognition of the fact that men as well as women are vitally concerned in the work.

#### DR. ALPHONSE McMAHON OF ST. LOUIS HONORED

Captain Alphonse McMahon, M.C., U. S. Navy, of St. Louis, recently returned from 18 months service in the South Pacific and now on duty at the U. S. Naval Hospital at the National Naval Medical Center, Bethesda, Maryland, has been honored by the Mississippi Valley Medical Society as its Distinguished Service Award Recipient for 1944. The award, consisting of a gold medal and certificate, was presented to Dr. McMahon by the Society's president, Dr. C. Paul White, at the annual banquet on the occasion of the 10th Annual Meeting held at the Pere Marquette Hotel, Peoria, Sept. 27.

#### DEATHS

FRANCIS WILLIAM BARTON, Danville; Columbia University College of Physicians and Surgeons, 1901. In 1909 he took two years to study in medical and surgical clinics in Paris, Vienna, Berlin and London. During World War I he served as a major with the A.E.F. He was district surgeon for the Chicago & Eastern Illinois Railroad for 40 years. Died September 14, 1944 at the age of 70.

LT. COL. MELBOURNE W. BOYNTON, Chicago; Rush Medical College, 1935. Was graduated from the parachute school at Ft. Benning, Georgia, last year and since being assigned to the office of flying safety, he had made several experimental jumps to test landing procedures. He was attempting to develop safety procedures for air crews forced to bail out at high altitudes. He plunged eight miles to his death when his parachute failed to open in a scientific test on August 19, 1944 at Clinton County Army Air Field, Wilmington, Ohio. He was 39 years old.

FRANCIS J. COUGHLIN, Aurora; Northwestern University Medical School, 1901. Former health commissioner of Aurora. Died September 22nd, 1944 aged 68.

HUGH LOYD DAVISON, Urbana; University of Pennsylvania School of Medicine, 1924. Served in World War I specializing in surgery and urology. He came to Urbana in 1931 where he helped create the Carle hospital clinic. Died of a heart attack while on a vacation, August 24, 1944. He was 47 years of age.

ORLANDO A. DONNELLY, Chicago; Bennett Loyola University, 1913. Served as a captain in World War I. Died of a heart ailment in Hines Veterans' hospital, September 6, 1944, aged 70.

JOHN ADAIR ELLIOTT, Chicago; Jenner Medical College, 1908. Practiced medicine in Chicago for 35 years. Died September 26, 1944, at the age of 66.

ARTHUR E. GILSTER, Chicago; Hahnemann Medical College and Hospital, 1910. Was a physician and surgeon in Chicago for 30 years. Died September 14, 1944 at the age of 57.

LESTER PAUL HULICK, Mansfield; Southwest School of Medicine and Hospital, Mo., 1925. Had practiced medicine in Mansfield for 15 to 20 years. He had been missing from his home for four days. His body was discovered in Sangamon forest preserve on August 24, 1944. He was 46 years of age.

RUFUS HENRY MAIN, Barry; Missouri Medical College, 1894. Had practiced medicine in Barry for 50 years. Had been in ill health for a long time and was found dead in his office from a self-inflicted gun shot wound August 20, 1944. He was 76 years of age.

LEON J. MAY, Anna; Kentucky School of Medicine, Louisville, 1905. Superintendent of Anna State Hospital. Died September 24, 1944 at the age of 68.

FREDERICK BROWN MOOREHEAD, Chicago; Rush Medical College, 1906. Was professor of oral surgery and head of the Department of Oral and plastic surgery, University of Illinois College of Medicine; professor of oral and plastic surgery at the University of Illinois College of Dentistry; attending oral and plastic surgeon, Presbyterian Hospital and Home for Destitute Crippled Children. Died in Presbyterian Hospital after an illness of many months August 29, 1944, aged 68 years.

GEORGE W. NESBITT, Sycamore; Northwestern University Medical School, 1892. Had practiced medicine in Sycamore more than 50 years. In March, 1943, he was awarded the "Fifty Year Pin" by the DeKalb County Medical Society. Died following a paralytic stroke August 22nd, 1944, aged 76.

WARD E. POTTER, Oak Park; University of Illinois College of Medicine, 1900. Had practiced medicine in Oak Park for 40 years until he moved south three years ago upon retiring. As a major in World War I he was credited with perfecting a new treatment for wounds. Died September 14, 1944 at the age of 68.

ARTHUR EDWIN SHELL, Clinton; University of Illinois College of Medicine, 1915. Had been ill and out of practice for some time. Died in St. James Hospital, Chicago Heights, September 3, 1944, at the age of 55.

RAYMOND V. SHROBA, Joliet; Loyola University School of Medicine, 1928. He had practiced medicine in Joliet for 16 years. Was drowned in the Fox River while rescuing his niece. The Shroba family were vacationing at the Bushy camp which is about four

miles southwest of Plano. The drowning occurred August 14, 1944. Dr. Shroba was 41 years old.

LOUIS LEO STEINER, Danville; University of Illinois College of Medicine, 1908. Began his practice in Deland, Illinois, coming to Danville in 1913. Died as the result of a heart attack August 19, 1944 while vacationing at Petosky, Michigan. He was 65 years old.

CARL P. STRUVE, South Elgin; Northwestern University Medical School, 1904. Had practiced medicine 37 years in South Elgin area. Former president of Kane County Medical Society. Died September 19, 1944 at the age of 66.

DANIEL D. VAN VOORHIS, Beecher; Bennett College of Eclectic Medicine and Surgery, 1893. Was surgeon for the Chicago & Eastern Illinois railroad for the last 35 years. Was killed when the automobile he was driving was struck by a truck September 12, 1944. He was 70 years old.

FRANCIS R. VON NAHOWSKI, Chicago; Northwestern University Medical School, 1921. Attending surgeon at Ravenswood Hospital. Died September 15, 1944 of a heart ailment at a hospital in Portage, Wisconsin. He was 48 years old.

GEORGE F. WAY, Urbana; University of Illinois College of Medicine, 1911. Was an Urbana physician for 30 years. Died after an illness of nine months on August 14, 1944, aged 58.

EARL E. WILCOX, Chicago; Hahnemann Medical College and Hospital, 1908. Had practiced medicine on the south side for 30 years. Died in Jackson Park Hospital September 16, 1944, aged 58.

SAMUEL E. WILLIAMS, Manlius; University of Illinois College of Medicine, 1893. Practiced medicine in New Bedford for 20 years, then went to Manlius. Died August 27, 1944, at the age of 78.

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*Penicillin* — Florey summarizes the clinical status of penicillin by stating that present evidence indicates that it is useful: (1) as a preventive of infection in wounds; (2) in the promotion of healing in burns and for ensuring the success of skin grafts; (3) in infections due to sensitive organisms, either chronic or of such severity as to render the prospect of death likely, which have not responded to other forms of treatment; (4) in acute infections due to sensitive organisms; (5) in the rapid curing of gonorrhea, including sulfonamide-resisting cases; (6) in pneumonia, and (7) probably in gas gangrene. More recently penicillin has also been found to be highly effective in syphilis. It has already been established that penicillin resistance may occur, in which case artificial fever may help as an adjunct.

While penicillin is the most dramatic antibiotic, there is reason to believe that other related agents may be found which will be even more satisfactory clinically since they may be effective against a wider variety of organisms than penicillin.—*Leake, Texas States J. Med., July 1944.*

# P. R. N.

The Jocular Jingles of C. G. F.

by

Charles G. Farnum M. D.

Peoria, Ill.

## AUTUMN

Again the cycle of the seasons bringeth the Autumn of the year.

Vegetation hath passed its period of fruition and now fadeth and shortly its period of hibernation cometh.

Each leaf taketh one last gay flare before it disintegrateth and with its multiudinous fellows colorfully decketh the hills with yellows, reds and browns before it falleth to earth where howling winds blow it and its companions into sodden heaps and the man with the rake gathereth all together for the burning. And as he raketh he forgetteth the restful shade from summer's blazing sun that leafy trees provide. Instead he heapeth invectives upon all leaves in general and longeth for a strong west wind that would take all to the domicile of his neighbor. But such a wind cometh not. Instead a laughing south wind springeth up and merrily scattereth his piles of leaves over the areas that he hath erstwhile raked.

The ardent gardener gazeth with gloom on his frosted plots and realizeth that the season hath become a closed book. He remembereth not the wind that withereth, the sun that burneth nor the horde of bugs and worms that eateth. He likewise forgetteth the aching muscles and the perspiring brow and the sparse return that gardening effort bringeth.

Instead his imagination carryeth him to the coming springtime where once again he digeth in the warm but unresponsive soil and planteth seeds which bear not.

Whereupon he sendeth for many seed catalogs and thus prepareth himself for his winter's reading.

The base ball fan who shortly ago sat sweltering in a blistering sun and with raucous voice berated the visiting team and cast vile aspersions at the umpire and his immediate forbears now sitteth shivering in the bleachers and shouteth wildly at sturdy youths who commit mayhem in the name of Alma Mater. His voice now hath a more frog like quality as he giveth advice with generosity and enthusiasm to the quarter back of the local team.

The householder thinketh of autumn only in terms of screens to be taken down and storm windows to be put up, of leaves to be raked and annuals to be bedded down for the winter. He contemplateth fuel bills and goloshes. Prestone and tire chains. His mind projecteth itself in the not distant future and he shud-

dereth as he seeth himself shoveling snow and fighting wintry blasts.

The duck hunter riseth long before the dawn and hieth himself to the marshes by the water courses where he wadeth in icy waters and siteth long hours, half frozen, in a blind and hopeth that he may slaughter an over-flying bird of passage. This is ever highly problematical. His only surety is a loss of time, a sizeable expenditure, many stiffened joints and a tenacious cold.

Yet when he computeth the cost, verily he is satisfied. That is what maketh him a duck hunter.

The golfer fareth forth in chilling winds in the vain hope that he may put two good nines together and assemble a creditable score before the season endeth. But he doeth nothing that resembleth it. However he still hath hope remaining, without which no man playeth golf.

Migratory birds assemble in chattering flocks in preparation for their journey to more auspicious climes where the sun is warm and life is one of ease and contentment.

And as one gazeth at these flocks of care free birds he meditateth on the bludgeonings of fate that maketh him to winter here in the bleak and ruthless northland, a fate that maketh his abiding place a fixed one which is so wholly at variance with his migratory instincts and desires. Of a truth necessity is a hard task-master.

Verily Autumn hath come and as one gazeth at the colorings of the foliage in a brilliant sun he becometh an exalted person and when an autumnal haze softenthese colorings to that of an ancient tapestry peace cometh into his being and tranquility encompasseth his soul.

Borden General Hospital, Chickasha, Oklahoma, has installed electro-acoustical apparatus enabling it to fit the individual patient with the best combination of manufactured hearing aids. Such equipment is rarely found in civilian institutions and represents a progressive step in the aural rehabilitation program. Hoff General Hospital, Santa Barbara, California and Deshon General Hospital, Butler, Pennsylvania, will be similarly equipped in the near future.

## NONCHALANCE

A gangster rushed into a saloon shooting right and left, yelling, "All you dirty skunks get outta here!"

The customers fled in the hail of bullets — all except an Englishman who stood at the bar calmly finishing his drink.

"Well?" snapped the gangster.

"Well," replied the Englishman, "there certainly were a lot of them, weren't there?"



# Benzedrine Inhaler in the ARMED FORCES

Benzedrine Inhaler has for some time been available to Flight Surgeons for distribution to high altitude flying personnel of the Army Air Forces for the relief of nasal congestion.

It has now been made a standard item for issue to all Army personnel on presentation by physicians.

*Smith, Kline & French Laboratories, Philadelphia*

## Benzedrine Inhaler



**Rapid, Complete and Prolonged Shrinkage**

Each tube is packed with racemic amphetamine, S.K.F., 200 mg.; oil of lavender, 60 mg.; menthol, 10 mg.

For results it's best to have  
**EVERYTHING\***!



**\*ELIXIR BEPADIN is the COMPLETE B complex...**

*Most Vitamin B deficiencies* are multiple ...and therefore require the *complete* B complex for thoroughly effective results.

*Cereals, liver, and yeast* are the richest, most important source of vitamin B complex. But not all the lesser known B factors are present in each of these 3 sources.

*Elixir Bepadin, I.V. C., however, combines all 3 sources*—rice bran extract, liver con-

centrate, yeast extract—to supply in Natural form the *complete* B complex.

*Added...* are thiamine, hydrochloride, riboflavin, pyridoxine hydrochloride, and calcium pantothenate—in an appetizing and delicious sherry wine vehicle.

In 16 oz. bottles. A product of The International Vitamin Corporation, "The House of Vitamins," New York, Dallas, Chicago, Los Angeles.



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## Sustaining Medication for the Liver

There are a number of liver affections where neither a choleretic nor a cholagogue is indicated. These include hepatitis, jaundice (including obstructive), post-surgical biliary symptoms and affections requiring arsenicals or surgery.



## S O R P A R I N

(Ext. *Sorbus aucuparia* "McNeil")

acts directly upon the liver cells, sustaining their function. It provides maintenance of an adequate prothrombin level and may be used routinely in all cases of biliary surgery.

Sorparin is nontoxic and non-kinetic. It is fully absorbed from the intestinal tract even in the absence of adequate bile flow. Sorparin can be used concurrently with hydrochloric acid, sedatives or antispasmodics.

Supplied in tablets, each containing 3 gr.  
Sorparin. Bottles of 100, 500 and 1000.

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**NO SYNTHETICS ADDED...**

*Apolarthron is the only high potency preparation of vitamins A and D derived entirely from natural sources. No synthetic vitamins are added or used in its manufacture.*

Derived entirely from natural fish liver oils, Apolarthron contains none of the toxic products, such as tachysterol and toxisterol, which are formed when vitamin D is prepared synthetically from ergosterol.

The proven greater safety of the

combined use of *natural vitamins A and D* makes Apolarthron an outstanding contribution to the treatment of arthritis—a chronic disease which requires intensive treatment with massive dosage of vitamin D over an adequate period of time.

Each Apolarthron capsule contains 25,000 U.S.P. units of natural vitamin D and 30,000 U.S.P. units natural vitamin A.



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**APOLARTHRON**

## SHOULD VITAMIN D BE GIVEN ONLY TO INFANTS?

**V**ITAMIN D has been so successful in preventing rickets during infancy that there has been little emphasis on continuing its use after the second year.

But now a careful histologic study has been made which reveals a startlingly high incidence of rickets in children 2 to 14 years old. Follis, Jackson, Eliot, and Park\* report that postmortem examination of 230 children of this age group showed the total prevalence of rickets to be 46.5%.

Rachitic changes were present as late as the fourteenth year, and the incidence was higher among children dying from acute disease than in those dying of chronic disease.

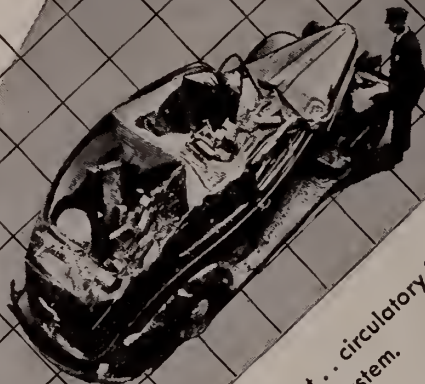
The authors conclude, "We doubt if slight degrees of rickets, such as we found in many of our children, interfere with health and development, but our studies as a whole afford reason to prolong administration of vitamin D to the age limit of our study, the fourteenth year, and especially indicate the necessity to suspect and to take the necessary measures to guard against rickets in sick children."

\*R. H. Follis, D. Jackson, M. M. Eliot, and E. A. Park: Prevalence of rickets in children between two and fourteen years of age, *Am. J. Dis. Child.* 66:1-11, July 1943.

MEAD'S Oleum Percomorphum With Other Fish-Liver Oils and Viosterol is a potent source of vitamins A and D, which is well taken by older children because it can be given in small dosage or capsule form. This ease of administration favors continued year-round use, including periods of illness.

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decrease in venous return flow and cardiac output . . circulatory failure  
.. anoxia . . impaired function of central nervous system.

**Traumatic Shock**

for prompt . . efficient . . reliable aid . . have on hand

**\*CORAMINE**

CIRCULATORY AND RESPIRATORY STIMULANT

*a Ciba  
Product*

# Seldom sick *but* never well



• Today, with our generously rationed American diet, there are few who develop frank vitamin deficiency syndromes.

But there is a great host of people who do not enjoy buoyant good health because they fail to obtain enough of these all-important accessory food substances.

*They are seldom sick but never well.*

For this great group, additional vitamins are necessary.

And what more convenient way is there to supply this need than to prescribe 'Avicap.'

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## *Avicap* Multi-vitamin Capsule

Each 'AVICAP' contains: Vitamin A . . . 5,000 U.S.P. units;  
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*when the going gets tough*

To save the lives of men in combat through sustaining their mental efficiency by overcoming the symptoms of fatigue, BENZEDRINE SULFATE TABLETS are available for issue in the Armed Forces.

The tablets are issued for combat use under strict medical supervision, and only on those occasions when intense or

prolonged operations, without opportunity for normal rest, are anticipated.

Although this is, of course, a tactical rather than a therapeutic use of Benzedrine Sulfate, the physician will, we believe, be interested to know that this familiar, clinically established drug has such a unique military application.



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Racemic amphetamine sulfate

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## COUNTY SOCIETIES

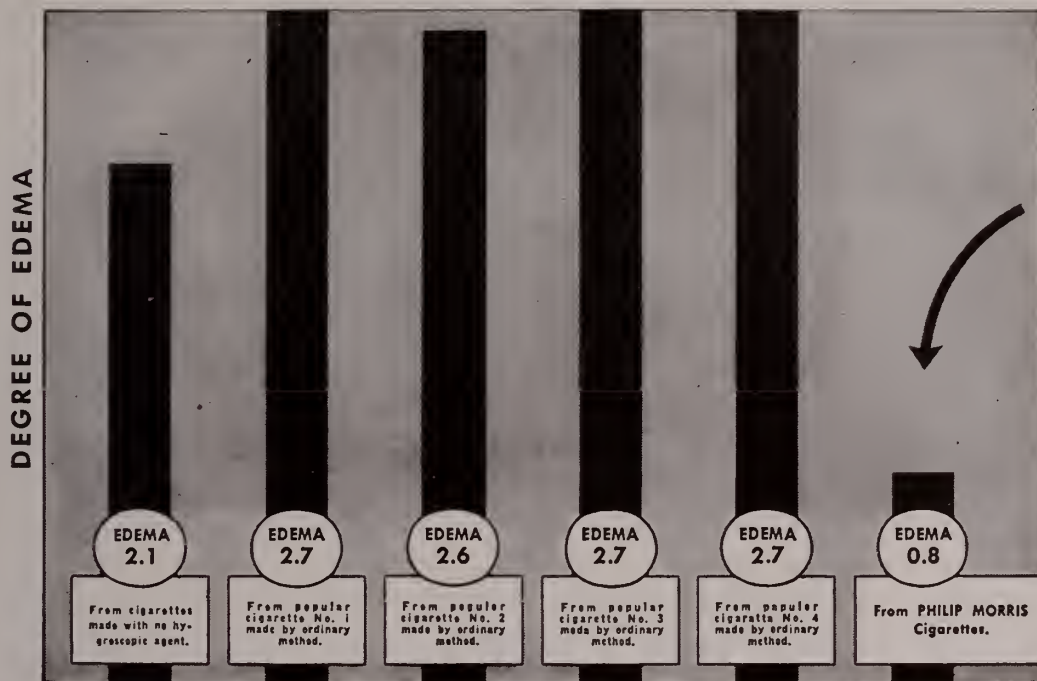
This list is corrected in accordance with the best information obtainable at the date of going to press. County Secretaries are requested to notify The Journal of any changes or errors.

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Kendall	No Society	
Knox	E. B. Grogan, Galesburg	G. K. Smart, Galesburg.
Lake	Charles K. Petter, Waukegan	Donald B. Douglas, Waukegan
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McDonough	R. G. Trummell, Bushnell	Wm. M. Hartman, Macomb.

(Continued on page 66)

## A PICTURE

*that means more than a thousand words*



### HOW IRRITATION VARIES FROM DIFFERENT CIGARETTES

Tests made on rabbits' eyes reveal the influence of hygroscopic agents

**CONCLUSION:\*** Results of these tests show that regardless of blend of tobacco, added materials, or method of manufacture, the irritation produced by ordinary cigarettes is *measurably greater* than that caused by PHILIP MORRIS.

**CLINICAL CONFIRMATION:\*\*** On men and women smokers with throats irritated by smoking, PHILIP MORRIS have been shown to be *definitely* less irritating.

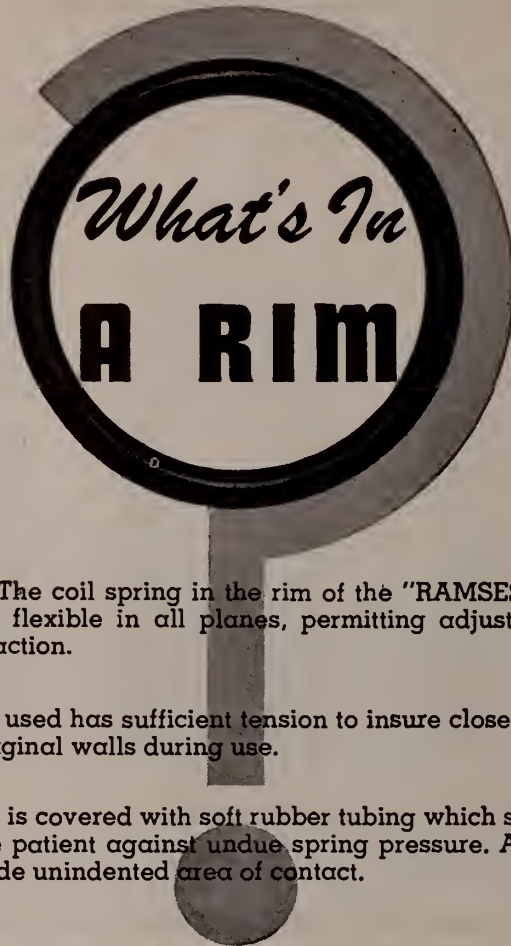
# PHILIP MORRIS

Philip Morris & Company, Ltd., Inc., 119 Fifth Avenue, New York



\*N. Y. State Journ. Med. 35 No. 11,590 \*\*Laryngoscope 1935, XLV, No. 2, 149-154

TO THE PHYSICIAN WHO SMOKES A PIPE: We suggest an unusually fine new blend—Country Doctor Pipe Mixture. Made by the same process as used in the manufacture of Philip Morris Cigarettes.



The coil spring in the rim of the "RAMSES" Diaphragm is flexible in all planes, permitting adjustment to muscular action.

The spring used has sufficient tension to insure close contact with the vaginal walls during use.

The spring is covered with soft rubber tubing which serves to protect the patient against undue spring pressure. Also provides a wide unindented area of contact.



Cut away section of "RAMSES" Diaphragm Rim. Note cushion of rubber tubing which protects against spring pressure; provides smooth unindented area of contact with vaginal walls.

End view of "RAMSES" Diaphragm Rim showing coil spring imbedded in rubber.



"RAMSES" Flexible Cushioned Diaphragms are supplied in sizes ranging from 50 to 95 millimeters. They are available through any recognized pharmacy. Only the "RAMSES" Diaphragm has the patented flexible cushioned rim.

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CONTRAST MEDIUM.

*Not a phenolphthalein*  
DERIVATIVE.

*Not* A GASTROINTESTINAL  
*irritant.*

*Well-tolerated:* VOMITING AND  
SEVERE DIARRHEA ARE RARE.

*Dependable* SHADOWS ENHANCE  
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### BOOK REVIEWS

**THE ART OF ANAESTHESIA:** By Paluel J. Flagg, M.D. Visiting Anaesthetist to Manhattan Eye and Ear Hospital; Consulting Anaesthetist to St. Vincent's Hospital, New York; Consulting Anaesthetist to the Woman's Hospital, Sea View Hospital, Jamaica Hospital, Mount Vernon Hospital, Flushing Hospital, Mary Immaculate Hospital, St. Mary's Hospital, Far Rockaway, N. Y.: Nassau Hospital, L. I.; Director of Pneumatology, World's Fair, New York City, and Chairman of Committee on Asphyxia of the American Medical Association. Seventh Edition. 166 illustrations. J. B. Lippincott Company, Philadelphia and London. 1944. Price \$6.00.

The popularity of this book is well shown by its having gone through seven editions in 28 years. The author has had much experience in anaesthesiology as is shown by the many positions he has held, including that of chairman of the Committee on Asphyxia of the American Medical Association.

The author considers in much detail the various anaesthesia agents which have been developed in recent years. He insists that one must not overlook the most dependable anaesthetic which has been used for the past century — ether. He states that ether is the most difficult anaesthetic to administer without producing unpleasant after effects, and urges anaesthetists to practice and teach proper administration to minimize the undesired after effects.

The first part of the book deals with the classification of anaesthesia, its characteristic signs and its administration by the various

*(Continued on page 52)*



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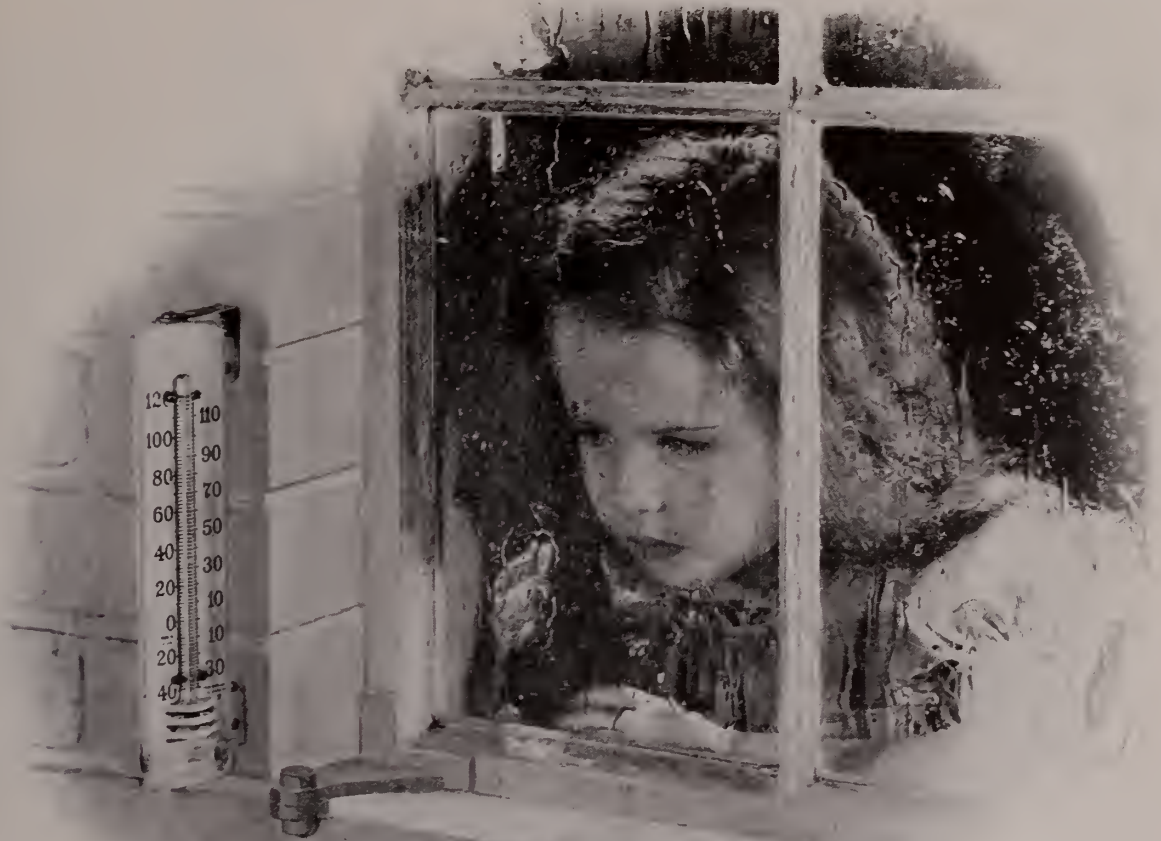
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## BOOK REVIEWS (Continued)

methods ordinarily employed; the second part deals with factors incidental to the actual administration of the anaesthetic, new agents and methods.

In Part I the author properly considers general anaesthesia, local anaesthesia and regional block. He stresses in general anaesthesia three basic functions: (1) induction (or putting the patient to sleep); (2) maintenance (or keeping the patient asleep without asphyxia, and (3) recovery. Much information is given relative to general consideration and technique of administration of all of the generally used anaesthetics for general anaesthesia, but it is quite obvious that the author has a high regard for ether as his choice of anaesthetic agents.

The various ways of using local anaesthetics are considered, and are classified under unusual and usual methods.

In Part II much information is given relative to preliminary medication in anaesthesia, post-operative treatment of the patient, and duties of the nurse before, during and after anaesthesia. Other interesting chapters are on such important subjects as carbon dioxide and rebreathing; selection of anaesthesia, and method of administration; newer methods of artificial respiration; art of intubation; causes of death in anaesthesia; and continuous spinal anaesthesia, and continuous caudal anaesthesia in obstetrics.

This seventh edition of a book which has always been highly popular will undoubtedly be of great value to physicians giving many or few anaesthetics, and should be a valuable addition to any physician's library.

(Continued on page 54)

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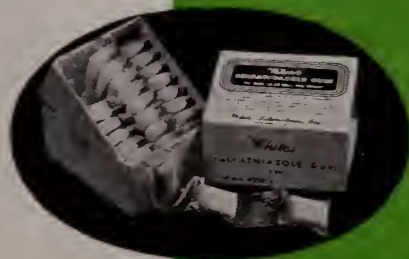
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## BOOK REVIEWS (Continued)

**MEDICAL DIAGNOSIS:** By Roscoe L. Pullen, A.B., M.D., Instructor in Medicine, Tulane University of Louisiana School of Medicine; Assistant Clinical Director, Charity Hospital of Louisiana at New Orleans; formerly Fellow in Clinical Endocrinology, Duke University School of Medicine and Duke Hospital, Durham, North Carolina. With a Foreword by John H. Musser, B.S., M.D., F.A.C.P., Professor of Medicine, Tulane University of Louisiana School of Medicine; Senior Visiting Physician, Charity Hospital of Louisiana at New Orleans. 1106 pages with 584 illustrations and 12 colored plates. W. B. Saunders Company, 1944, Philadelphia and London. Price \$10.00.

With an interesting foreword by John H. Musser, M.D., Professor of Medicine, Tulane University of Louisiana School of Medicine, a total of twenty-seven contributors participated in the development of this book. It was the intention in its development to provide not merely another elementary volume on medical diagnosis, but to summarize more thoroughly the complete examination of the sick using information

procured through all available data following a complete examination.

The value of careful history taking and what should be included is well discussed in the opening chapter by the author. The second chapter is devoted to an introduction to examination of the patient. Subsequent chapters are relative to special examinations, each written by a specialist in the various fields, including examination of the skin, the eyes, oral diagnosis, the nose, throat and ears, the neck, heart, etc.

The second part of the book gives in detail special examinations in which information is included on the psychiatric approach, differential diagnosis of neurosis and psychosis, practical mental measurement and electroencephalography. Included in this section also are occupational injury, military problems, and pediatric physical diagnosis.

The last chapter in the book on determinants of prognosis is well worth the cost of the book as it deals with a number of highly interesting as well as important subjects which are of inestimable value to the physician in determining the prognosis of the average case. The personal

(Continued on page 58)

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**BOOK REVIEWS (Continued)**

history, moral hazard and habits are especially stressed as highly important factors in prognosis determinations. The environment, financial status, family history, and the build of the patient are carefully considered. Proper consideration of past illness is also given its evaluation, and this chapter is written by the medical director of a life insurance company.

This fine book is different from the average text on the subject although it will be of much value to the student, it is an excellent book for any physician to have in his library since it contains a wealth of information not usually found in a single volume.

**SULFONAMIDE THERAPY IN MEDICAL PRACTICE:**

By Frederick C. Smith, M.D., M.Sc. (Med.), F.A.P.S., Editor of Philadelphia Medicine, official organ of the Philadelphia County Medical Society; Editor of the Medical World; Lieutenant Colonel, Medical Reserve Corps, Army of the United States. Foreword by George Morris Piersol, B.S., M.D., Professor of Medicine, Graduate School of Medicine, University of Pennsylvania; Editor in Chief, The Cyclopedia of Medicine, Surgery, and Specialties. Illustrated with Numerous Engravings, Graphs and Tables. F. A. Davis Company, Publishers, 1944. Philadelphia.

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mum of two years, "there was no evidence of any irritation of the cervix or vagina by the tampon."

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(1) West. J. Surg., Obst. & Gyn., 51:150, 1943.

(2) Am. J. Obst. & Gyn., 46:259, 1943. (3)

Clin. Med. & Surg., 46:327, 1939. (4) Med.

Rec., 155:316, 1942.

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*(Continued on page 63)*

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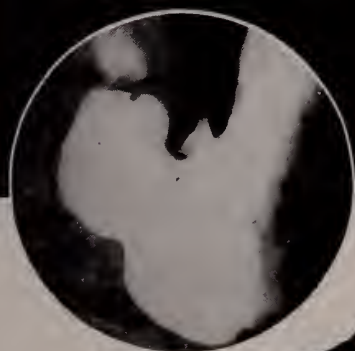
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In the appendix the story of penicillin is included with some interesting information on this more recent addition to the long list of chemotherapeutic agents.

The book was written following the reviewing of the vast amount of new literature on this subject, and after a careful analysis of this material. This should be a valuable addition to any physician's library, and the average reader will be intensely interested in every chapter.

(Continued on page 64)

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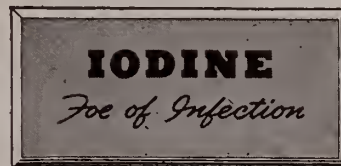
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## BOOK REVIEWS (Continued)

**CLINICAL LECTURES ON THE GALLBLADDER AND BILE DUCTS:** By Samuel Weiss, M.D., F.A.C.P., Clinical Professor of Gastroenterology, N. Y. Polyclinic Medical School and Hospital; Gastroenterologist, Jewish Memorial Hospital, N. Y.; Consulting Gastroenterologist, Beth David Hospital, N. Y., Long Beach Hospital, Long Island, etc. The Year Book Publishers, Inc., Chicago, Illinois. Price \$5.50.

This book consists of thirty clinical lectures on the gallbladder and bile ducts, beginning with the anatomy of the biliary tract, physiology of the gallbladder and its ducts, history taking and interpretation of subjective complaints, physical examination and physical diagnosis of the gallbladder.

The author emphasizes the well known facts that no two patients are exactly alike, and also that a disease is seldom limited to any single organ of the body. Gallbladder and bile duct disease usually affect the liver, pancreas, gastrointestinal tract, and also the cardiorenal vascular system. Frequently the primary cause of the

trouble may be overlooked, especially when the more prominent symptoms are referable to other organs. In every case a thorough history, carefully made physical examination and special studies must be made in order to determine the pathologic conditions which are present.

The various types of cholecystitis and methods by which a differential diagnosis can usually be made are well discussed. Likewise cholelithiasis is outlined in much detail in six of the thirty lectures. The author devotes considerable space in each lecture to considerations in differential diagnosis, then the treatment for the various types of disturbances is described.

The lecture entitled "Cholelithiasis; Medicine or Surgery?" is highly interesting and should appeal to many members of the medical profession who give much conscientious thought and study to this important question. It is quite obvious that the reader will be greatly interested in this subject and in the line of reasoning followed by the author.

The book is well written and should be of

(Continued on page 67)



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<sup>1</sup> Diseases of the Skin: Sutton & Sutton, 1939, p. 99.

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# BOOK REVIEWS (Continued)

interest to many physicians who so frequently see many of the conditions which are so well discussed.

**A HUNDRED YEARS OF MEDICINE:** By C. D. Haagensen, M.D., and Wyndham E. B. Lloyd, M.D. New York, Sheridan House, 1943. 444 pages. Price \$3.75.

This is an extremely interesting book which will offer a great deal of pleasant reading to anyone interested in medicine. Primarily the material was prepared for lay reading, but the members of the medical profession will derive considerable pleasure from its pages. The book offers a great deal of historical information which will recall the outstanding contributions in medicine during the past hundred years.

The book is divided into sections and chapters which are, in reality, a series of articles on various subjects which have been of paramount interest during the last century. Individual chapters stand alone and are practically complete units of thought in themselves.

The sections into which this material has been divided are: "Medicine up to 100 years ago", "Medical science during the last 100 years", "Surgery during the last 100 years", and "The new social aspects of medicine". The phenomenal advances made in medicine and surgery during this past century could not make other than fascinating reading, and the last section forecasting what medicine promises in the future, holds your interest.

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(Continued on page 68)



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### BOOK REVIEWS (Continued)

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F.C.Z.

## Books Received

The following books have been received for reviewing, and are herewith acknowledged. This listing should be considered as a sufficient return for the courtesy of the sender. Books that appear to be of unusual interest will be reviewed as space permits each month. Readers desiring additional information relative to books listed, may write the Editor who will gladly furnish same promptly.

**PLASTER OF PARIS TECHNIC;** By Edwin O. Geckeler, M.D., Associate Professor of Orthopaedic Surgery, and Chief of the Fracture Service, Hahnemann Medical College and Hospital, Philadelphia; Fellow of the American College of Surgeons; Fellow of the American Academy of Orthopaedic Surgeons;

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Fellow of the American Association for the Surgery of Trauma; Diplomate of the American Board of Orthopaedic Surgery. The Williams & Wilkins Company, Baltimore, 1944. Price \$3.00.

**GLOBAL EPIDEMIOLOGY.** A Geography of Disease and Sanitation. By James Stevens Simmons, B.S., M.D., Ph.D., Dr. P. H., Sc.D., (HON.) Brigadier General, United States Army; Chief, Preventive Medicine Service, Office of the Surgeon General, United States Army, etc., and Tom F. Wayne, A.B., M.D., Lieutenant Colonel, M.C., AUS; Formerly Director Medical Intelligence Division, Preventive Medicine Service, Office of the Surgeon General, United States Army; and Gaylord West Anderson, A.B., M.D., Dr.P.H.; Lieutenant Colonel, M.C. AUS; Director, Medical Intelligence Division, Preventive Medicine Service, Office of The Surgeon General, United States Army; Director, School of Public Health, University of Minnesota; and Harold Mac-lachlan Horack, B.S., M.D., Major, M.C., A.U.S.; Chief, Dissemination Branch, Medical Intelligence Division, Preventive Medicine Service, Office of The Surgeon General, United States Army; Instructor in Medicine, Duke University School of Medicine, and collaborators. Volume One. Part One: India and Far East. Part Two: The pacific Area. J. B. Lippincott Company, Philadelphia and London.

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In This Issue

The Recognition and Management  
of Surgical Lesions of  
the Sigmoid and Pelvic Colon

+

Practical Points in the Recognition  
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(See page 35 for Table of Contents)

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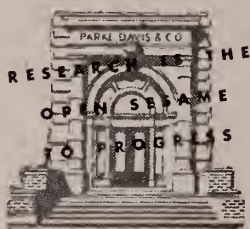
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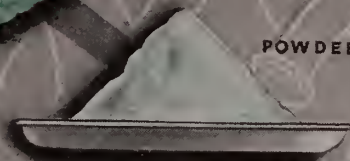


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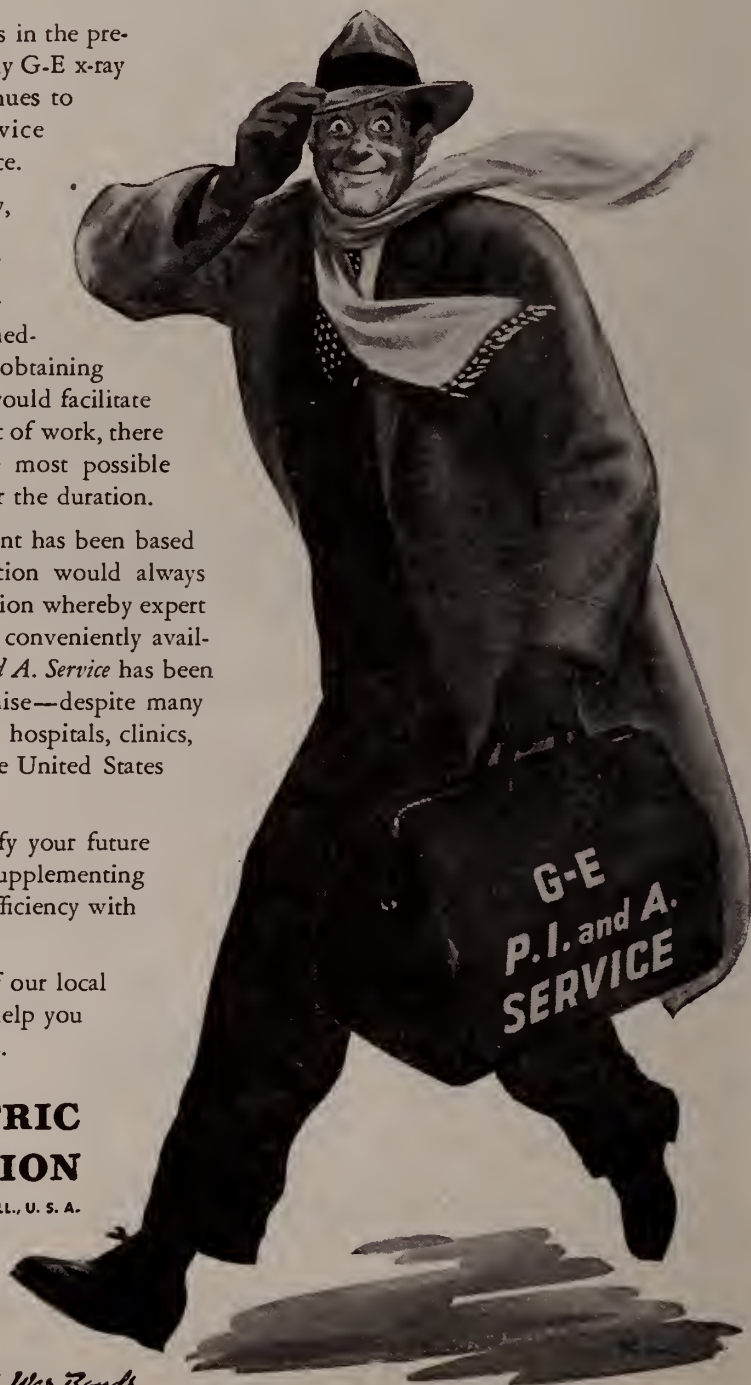
Similarly we are determined to justify your future investments in G-E products, by supplementing their well-known high quality and efficiency with a competent field service.

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Today's Best Buy - U. S. War Bonds

# Therapy in Nutritive Failure

IN MANY, if not most disease states, the therapy of nutritive failure is important in hastening convalescence and restoring the patient to a state of health.

**The four essentials for therapy in nutritive failure include . . .**

1. **DIET:** 4,000 calories, 150 gram protein, rich in vitamins and minerals.
2. **BASIC THERAPY:** Thiamine; riboflavin, niacinamide, ascorbic acid, orally.
3. **ADDITIONAL MEDICATION:** Synthetic vitamins as indicated orally or parenterally.
4. **NATURAL B COMPLEX:** Brewers' Yeast or extract, or rice bran extract, and/or liver extract orally or parenterally.

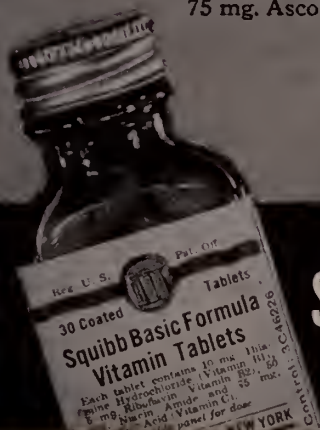
The Squibb Laboratories provide three of the four essentials for such therapy. They provide **BASIC FORMULA VITAMIN TABLETS** for intensive **BASIC THERAPY**—note their content:

10 mg. Thiamine Hydrochloride  
50 mg. Niacinamide  
5 mg. Riboflavin  
75 mg. Ascorbic Acid

This is the basic formula used by Drs. N. Jolliffe and T. D. Spies and described by the latter in his paper on Nutritional Rehabilitation of 100 American workers for Industry.

Squibb also provides the synthetic vitamins indicated for *additional medication* as well as the *natural B Complex* factors—the fourth essential therapy of nutritive failure.

*Sold to druggists in bulk. . . . Prescribe as few or as many tablets as may be needed. . . . The cost per tablet is surprisingly low. . . . Write for literature.*



## Squibb Basic Formula Vitamin Tablets

**Zymenol**  
Brewer's Yeast Emulsion



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## A TANDEM ACTION in Gastro-Intestinal Dysfunction

*Equally Effective In:*  
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**Colitis • Diarrhea**



*\*Zymenol Contains Pure  
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(no live cells)*

**Zymenol** Assures normal intestinal content through  
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Aids restoration of normal intestinal motility  
with complete natural vitamin B Complex.\*

This two fold natural therapy is equally effective in the irri-  
table, unstable or stagnant bowel without catharsis, artificial  
bulkage, large doses of mineral oil or constipating astringents.

*Economical teaspoon dosage avoids leakage  
and interference with vitamin absorption.*

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CHEMICALLY PURE  
DEHYDROCHOLIC ACID

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Maltbie is proud of having successfully formulated an original process for converting crude viscous ox bile into crystals of chemically pure dehydrocholic acid (Cholan-DH)—the most potent and least toxic agent ever developed for the therapeutic stimulation of free biliary flow. ¶ But far more important than the process itself, is the remarkably salutary effect of Cholan-DH in providing maximally efficient drainage of the biliary tract—in contrast to older measures which only cleared the gallbladder of its concentrated contents, or stepped up biliary flow without reducing its viscosity or relieving gallbladder stasis. ¶ Physicians are now employing Cholan-DH in the effective non-surgical management of many biliary tract disorders. ¶ Available for oral use in tablets of 3¾ gr. each.

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THE MALTBIÉ CHEMICAL COMPANY • NEWARK, NEW JERSEY

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said many long ago!



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say many today!

*"One cigarette less irritating than another? Nonsense . . . they're all the same!"* You have probably heard that as often as Columbus heard the world was flat!

BUT there *is* a difference in cigarettes. PHILIP MORRIS are measurably less irritating to the nose and throat. That is no longer a matter of speculation. It has been *proved*. Conclusively. Both in the clinic and the laboratory. And to the complete satisfaction of respected medical authorities, whose studies have been published in the foremost medical journals.\*

May we urge you to try PHILIP MORRIS Cigarettes yourself? We know of no better way to convince you than actually to *see* the results.

# PHILIP MORRIS

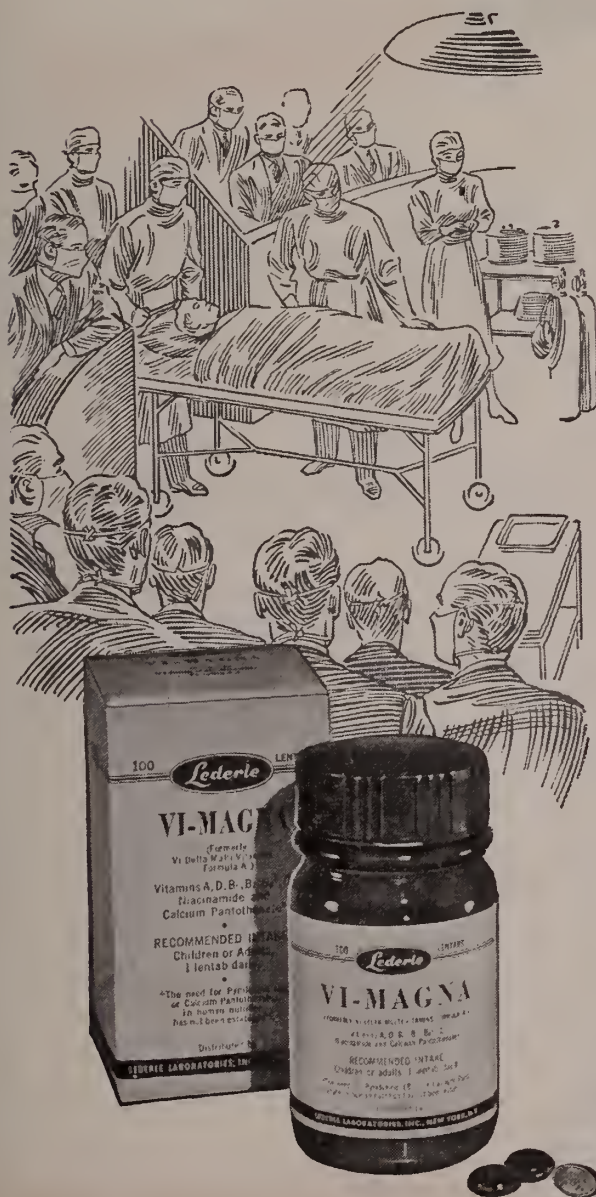
Philip Morris & Company, Ltd., Inc., 119 Fifth Avenue, New York



\**Laryngoscope*, Feb. 1935, Vol. XLV, No. 2, 149-154. *Laryngoscope*, Jan. 1937, Vol. XLVII, No. 1, 58-60. *Proc. Soc. Exp. Biol. and Med.*, 1934, 32, 241. *N. Y. State Journ. Med.*, Vol. 35, 6-1-35, No. 11, 590-592.

TO THE PHYSICIAN WHO SMOKES A PIPE: We suggest an unusually fine new blend—Country Doctor Pipe Mixture. Made by the same process as used in the manufacture of Philip Morris Cigarettes.

# Multi-vitamins in surgery and obstetrics . . .



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**A**LERT SURGEONS have been quick to appreciate the great usefulness of preoperative and postoperative multi-vitamin administration. Patients who reach the operating table in an excellent state of nutrition and in favorable mental condition react, in general, better to surgery than those who have previously received an inadequate diet.

*Multi-vitamin administration is useful in—*

- Preoperative and Postoperative Care
- Wound Healing
- Surgical Vomiting
- Jejunal Fistula Enterostomy and Allied Operations
- Pregnancy and Lactation

### VI-MAGNA LENTABS Lederle

*Each LENTAB supplies a full daily supplement of essential vitamins:*

Vitamin A.....	5,000 U.S.P. XII Units
Vitamin D.....	500 U.S.P. XII Units
Ascorbic Acid (C).....	30 mg.
Thiamine HCL (B <sub>1</sub> ).....	3 mg.
Riboflavin (B <sub>2</sub> ).....	2 mg.
Niacinamide.....	20 mg.
Calcium Pantothenate..	10 mg.
Pyridoxine HCL (B <sub>6</sub> )...	0.2 mg.

VI-MAGNA LENTABS are thin, easily swallowed, gelatin-coated tablets. The fat-soluble vitamins are emulsified in a gelatin matrix containing the water-soluble vitamins. This improved structure releases the vitamins slowly so that after-taste is abolished.

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When raw, painful throats

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1. The acetylsalicylic acid is carried to the very site of pharyngeal inflammation. A copious salivary flow, laden with this effective analgesic, is brought into immediate and prolonged contact with painful irritated areas—providing prompt and gratifying relief.

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3. The patient is more comfortable, earlier partakes of a suitable diet; convalescence is hastened.

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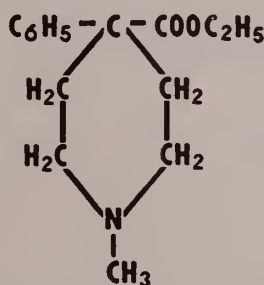


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*For Oral and Intramuscular Administration*

*THE analgesic effect appears to be between that of morphine and codeine, and it persists for from three to six hours.*



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**Demerol hydrochloride**

Demerol has many indications in medicine, surgery and obstetrics.

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Supplied for oral use, tablets of 50 mg.; for injection, ampuls of 2 cc. (100 mg.).



## Demerol

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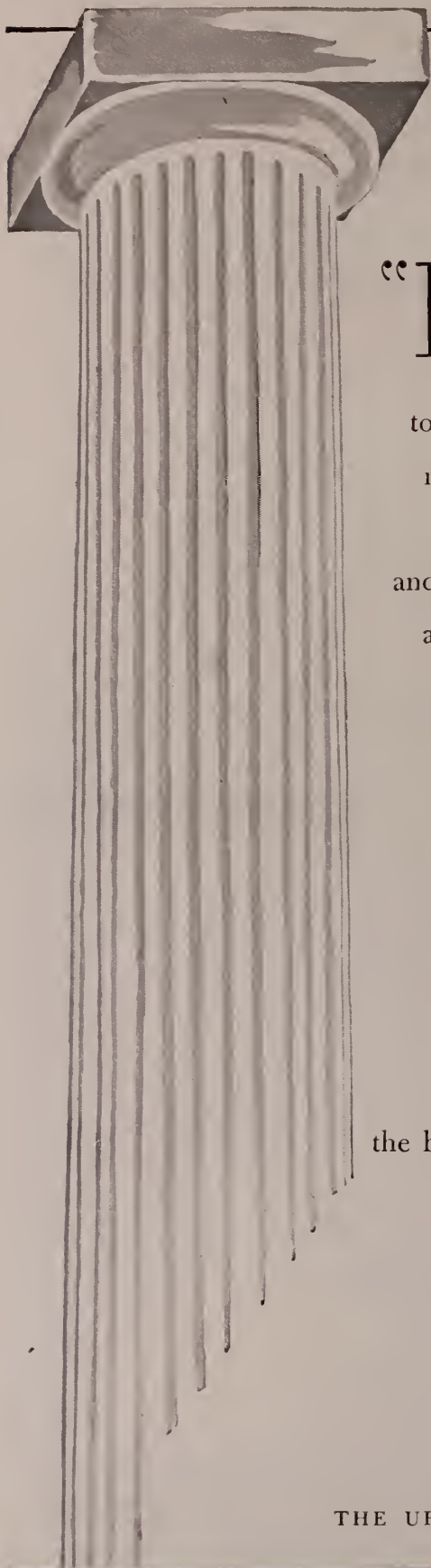
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to finish the work we are in; to bind up the  
nation's wounds; to care for him who shall  
have borne the battle, and for his widow  
and his orphan—to do all which may achieve  
and cherish a just and lasting peace among  
ourselves and with all nations.”

*A. Lincoln*

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affords us the privilege of giving more  
of ourselves to “him who shall have borne  
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ARSENOFERRATOSE offers optimal regeneration of hemoglobin without producing undesirable side-effects; the stomach tolerates it at once and in full therapeutic amounts—thus the necessity for graduated doses is obviated; easy and convenient administration, precise and reproduceable pharmacologic action, and economy consistent with the type of fabrication required for this product—col-

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**Supply:** Elixir Arsenoferratose, and Elixir Arsenoferratose with Copper, bottles of 8 oz. and 1 pt. Arsenoferratose Tablets, 100s.

**Note:** 1 teaspoonful of the elixir supplies more than the daily minimum requirement of iron for the normal adult.

# ARSENOFERRATOSE

*Trade Mark Reg. U. S. Pat. Off.*

HEMATINIC AND ALTERNATIVE

*Literature and samples to physicians on request*

RARE CHEMICALS, INCORPORATED, HARRISON, NEW JERSEY

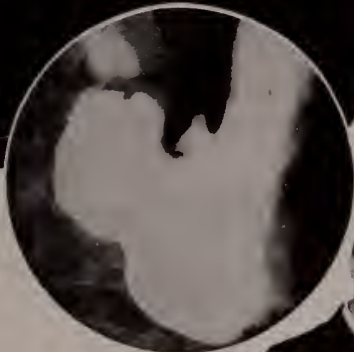


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**A True Magma**

**No Aluminum  
Hydroxide Used  
to Hold It In  
Suspension; Hence  
No Undesirable  
Astringency,  
No Constipation**



Magmasil is available through all pharmacies in 12 oz. bottles.



**STOPS PAIN PROMPTLY...**

**HOLDS IT IN ABEYANCE...**

**PREVENTS RECURRENCE AT NIGHT**

Chloride depletion, astringent action, and the resultant undesirable constipation which beset so many other antacids are absent from Magmasil therapy. Hence patient cooperation is assured and rapid clinical results ensue in peptic ulcer, gastritis, hyperchlorhydria.

Magmasil, a palatable, stable aqueous suspension of hydrated magnesium trisilicate, neutralizes 86 cc. of N/10 HCl per teaspoonful. This action is exerted over fully four hours, permitting of fewer administrations, simplifying treatment.

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Physicians are invited to send for samples and a complimentary copy of the brochure "Twenty Years of Progress in Ulcer Therapy."

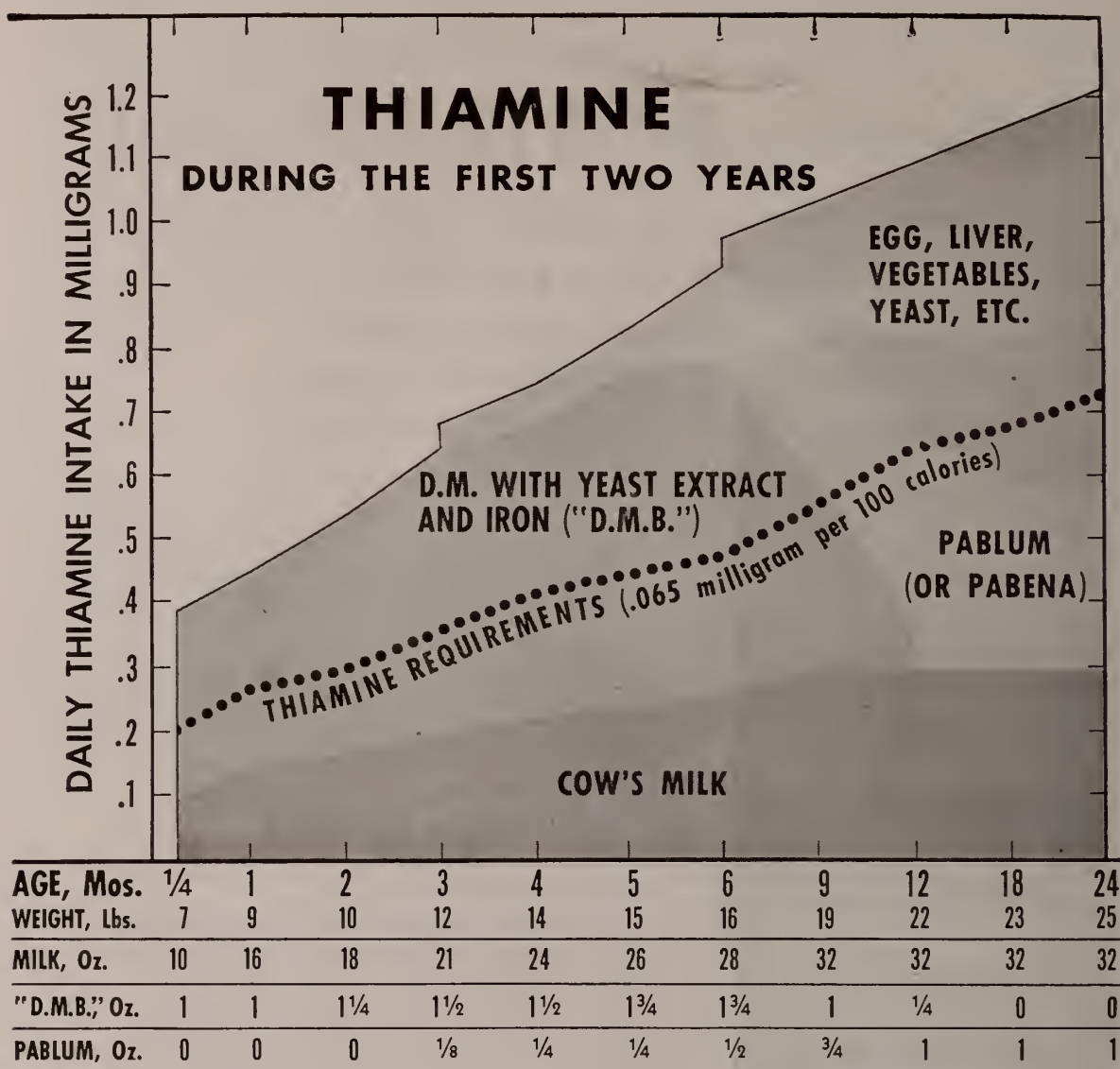
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## *Magmasil*

**IN PEPTIC ULCER...**

**GASTRIC HYPERACIDITY...**

**ACUTE AND CHRONIC GASTRITIS**



## THIAMINE DURING THE FIRST TWO YEARS

Thiamine functions as a component of a cellular respiratory enzyme system, and is necessary for the complete combustion of carbohydrate. Complete thiamine deficiency eventually results in beriberi, which happily is seldom seen in America. However, authorities agree that partial thiamine deficiency in this country is widespread.

In clinical practice, it is desirable to allow a liberal margin of safety over calculated requirements. The chart shows that this safety factor may be assured when the carbohydrate is "D.M.B." and the cereal is either Pablum or Pabena.

# The Nutritional Factor

## PHYSIOLOGIC FUNCTIONS INFLUENCED BY HEPTUNA

CONSTITUENTS	PHYSIOLOGIC FUNCTIONS
FERROUS SULFATE	→ Hemoglobin Formation
VITAMIN A	→ Epithelial Integrity Absorption from Intestinal Tract Secretion
	→ Dark Adaptation (Night Vision)
VITAMIN B <sub>1</sub> (Thiamine)	→ Gastrointestinal Function Anorexia Intestinal Motility Carbohydrate Metabolism Mental and Physical Efficiency Blood Regeneration
VITAMIN D	→ Calcium and Phosphorus Metabolism Iron Absorption and Utilization
VITAMIN G (Riboflavin)	→ Hemoglobin Formation Cell Respiration Corneal Integrity

## IN POSTSURGICAL ANEMIA

Speedy correction of postsurgical anemia is a valuable contribution to rapid recovery. Through unfavorable influence on gastric secretion, on appetite, and on the sense of well-being, anemia interferes with food intake at the very time when nutrition is of paramount importance.

The requirements in postsurgical anemia are best satisfied when, in addition to iron, the factors are supplied which are essential to . . . optimal iron utilization . . . the promotion of appetite and intestinal function . . . stimulation of a feeling of well-being.

Heptuna provides not only an adequate amount of highly available iron but, in addition, the fat-soluble vitamins A and D, and the B-complex vitamins (partly derived from a vitamin-rich liver extract and yeast).



**J. B. ROERIG & COMPANY**  
536 Lake Shore Drive • Chicago 11, Illinois

# Heptuna

### EACH CAPSULE CONTAINS :

Ferrous Sulfate..... 4.5 gr.  
Vitamin A..... 5000 U.S.P. Units  
Vitamin B<sub>1</sub> (1 mg.)..... 333 U.S.P. Units  
Vitamin D..... 500 U.S.P. Units  
Vitamin G (0.50 mg.)..... 500 micrograms  
together with liver concentrate (vitamin fraction),  
derived from 4 grams of fresh liver and dried  
brewers yeast.

# EFFECTIVE *Ambulant* THERAPY

Kamadrox fulfills the three demands of the patient in peptic ulcer, gastritis, and gastric hyperacidity: It stops the characteristic pain promptly—keeps the patient ambulatory—permits lesions to proceed to healing. • Kamadrox—composed of magnesium trisilicate (50%), aluminum hydroxide (25%), and colloidal kaolin (25%)—provides promptly effective, profound, and prolonged acid neutralizing power; systematically inert, it cannot lead to alkalosis or acid rebound; it is astringent, demulcent, adsorbent, protective; it exerts no influence on intestinal motility, proves neither laxant nor constipating. Its pleasant taste promptly gains patient cooperation.



## KAMADROX



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Magnesium trisilicate.....	4 grains
Aluminum hydroxide.....	2 grains
Colloidal kaolin.....	2 grains

Dose, 1 or 2 tsp. of the powder, well dispersed in water, t.i.d., p.c. Of the tablets, 2 with water, t.i.d. or q.i.d.

**THE S. E. MASSENGILL COMPANY**

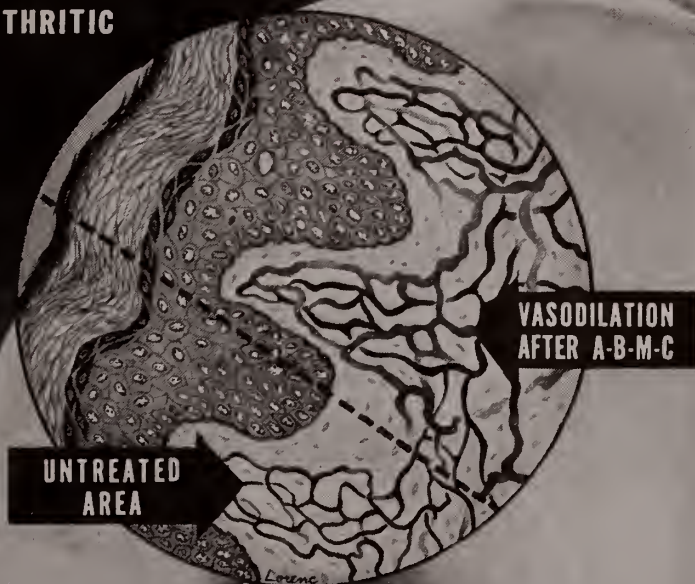
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# "Inflation"

CAN BE GOOD FOR  
THE ARTHRITIC



**ARTHRITIC PAIN** often is accompanied and intensified by inadequate circulation.

Dilation of local arterioles and capillaries increases blood supply, can bring relief.

A-B-M-C Ointment accomplishes this—brings about a helpful "inflation" of these blood-carrying vessels—without provoking urticaria or other untoward effects.

A-B-M-C Ointment is spread, without rubbing, on the affected part and heat is applied for 20 minutes.

Supplied in 1-oz. tubes.

WYETH Incorporated, Philadelphia

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**To Adhere** to standards which will insure purity, uniformity and highest quality in every product bearing the Barlow-Maney Label.



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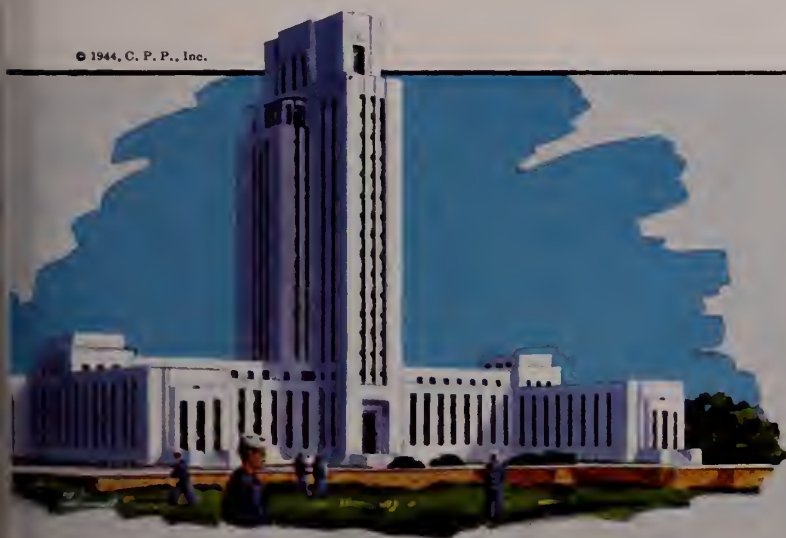
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PRESLEY MARION RIXEY**  
*(1852-1928) U.S. Navy*

## Father of Naval Medical Instruction

Conceiving Naval Medicine to be a distinct specialty, Dr. Rixey sent Naval Medical Officers to important civilian institutions for post-graduate training and eventually established the now famous Naval Medical School in Washington. Under his administration, every Naval Hospital was modernized, five new ones built, three new supply depots established, the strength of the Corps doubled, the Nurse Corps created, the Naval Medical Bulletin founded and compulsory annual physical examinations for officers instituted.

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*One ounce (4 envelopes) of  
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IS PLAIN, UNFLAVORED GELATINE...

ALL PROTEIN, NO SUGAR

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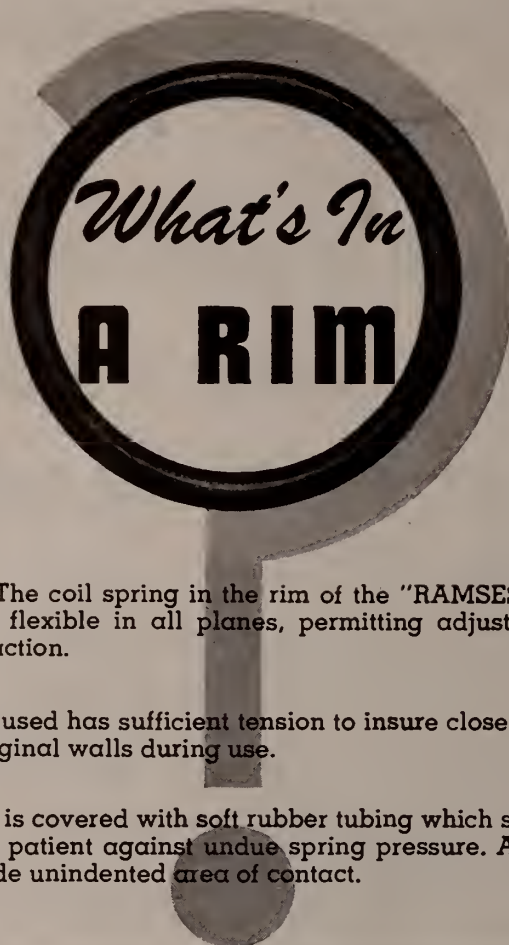
Send for the free pamphlet "The Protein Value of Plain, Unflavored Gelatine," with analysis of amino acid content, comparisons with other protein-rich foods. Write Knox Gelatine, Johnstown, N. Y., Dept. 483

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The spring used has sufficient tension to insure close contact with the vaginal walls during use.

The spring is covered with soft rubber tubing which serves to protect the patient against undue spring pressure. Also provides a wide unindented area of contact.



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"RAMSES" Flexible Cushioned Diaphragms are supplied in sizes ranging from 50 to 95 millimeters. They are available through any recognized pharmacy. Only the "RAMSES" Diaphragm has the patented flexible cushioned rim.

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**JULIUS SCHMID, INC.**  
Established 1883

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who prefer to prescribe oral estrogens derived from natural sources and seek an inexpensive tablet preparation.

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**DOCTORS DISCHARGED**  
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# The Illinois Medical Journal

November, 1944

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Official Journal of the Illinois State Medical Society

EDITOR — Harold M. Camp. EDITORIAL BOARD — James H. Hutton, Chairman, Frederick H. Falls,  
Josiah J. Moore, Edwin M. Miller, Chauncey C. Maher, Harry S. Gradle,  
Harry Culver, Walter Stevenson, Raymond W. McNealy.

## Editorials

### ARE YOU WILLING TO RELOCATE?

As we rapidly approach the end of the third year of the war, we find approximately 4,100 Illinois physicians serving with our armed forces. At this time practically every physician within the present draft age is in service or has been physically disqualified. There are but few exceptions, these being physicians declared essential in their present locations or positions. Formerly each year, hundreds of young physicians who had completed their internship, selected a location and entered the private practice of medicine. Since the beginning of the war these men, having previously been commissioned, entered the medical corps of the Army or Navy upon completion of their interne service, which has been reduced to nine months.

In many Illinois communities, older physicians have been left to carry on. By spending longer hours each day, these men have endeavored to care for the patients of the younger men who have joined the medical corps. The Procurement and Assignment Service for Physicians was delegated the responsibility of filling the needs of communities with inadequate, and in a few cases, no medical personnel. Many physicians have voluntarily offered to relocate at least for the duration.

Today we find there are a number of communities needing physicians and in a few instances this need is quite urgent. Procurement and Assignment Service has made repeated sur-

veys or appraisals to check on information which has been received relative to the need for additional medical personnel. At the same time, we have endeavored to maintain a list of physicians who have given an assurance of their willingness to go to these communities and enter practice. There are a number of excellent locations available at this time, most of which will be permanent for even though the physicians formerly located there return to resume practice, there will be room for additional medical personnel after the war.

In compliance with orders received from the War Manpower Commission, Procurement and Assignment Service, each physician desiring to relocate receives a form (No. 186 — revised) to give us pertinent information for the guidance of the State Committee and its chairman, so that they will be better enabled to determine whether or not the physician will fill the needs of the individual community desiring a doctor. At the same time, in the office of the state chairman, mimeographed information concerning each community is available, and will be sent promptly to those who have submitted the official form and who are believed to be able to meet the needs of these communities.

Even though quite a number of community needs have already been filled through the relocation of physicians, there are still a number of excellent openings at the present time. In order to save as much time as possible, Form

No. 186 (revised) is published in this issue of the Illinois Medical Journal (Page 239), and those physicians willing to relocate are urged to fill out this form and send it to the State Chairman, Procurement and Assignment Service, Post Office Drawer 156, Monmouth, Illinois.

### AN UNUSUAL TRIBUTE

Recently a popular and prominent Illinois physician who had practiced in a small city for nearly thirty years, passed away after a long illness. During these years of practice, he had been intensely interested in the welfare of his community and had aided in every way possible to develop the local hospital, approved by the College of Surgeons, the A.M.A. and the American Hospital Association. For years he acted as secretary of the hospital staff and was particularly concerned with improving the medical facilities, and also the staff quarters, as well as developing a medical library, installing improvements in the laboratory services, etc.

When he knew that it was improbable that he would recover from his illness, he concentrated his thoughts on the future of the institu-

tion of which he had been an integral part over a long period of time. He discussed his proposed plans with his wife and family, and expressed a desire that in the event of his death, his friends be requested not to send flowers for his funeral, but to donate the amount they intended to spend, to the hospital where the fund should be held by the superintendent temporarily, then the hospital staff, together with the Hospital Board, should determine the purpose for which the fund was to be expended. His request was made public through the press following his death.

It has been reported during recent weeks following his death, that this fund is still growing, and that old friends hundreds of miles away, are adding their tribute by sending a check to become a part of this memorial. No definite plans for expenditure have been made as yet, but undoubtedly this fund, now over \$1,200.00, will be spent wisely and conscientiously, in memory of an outstanding member of the medical profession who gave unsparingly of his time, strength and affection, not only to his patients, but also to his fellow practitioners.

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Society will pay no bills for legal services except those contracted by the Committee. Notify the Chairman at once. Do not employ attorneys.

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## NEWS FOR OUR MEN AT WAR

Doctor Carl E. Black, secretary of the Morgan County Medical Society, has been sending a transcript of the minutes of all meetings of his society to the members in service with a note to these physicians asking for interesting facts concerning their service, operations, diseases, etc., which will be of much interest to those members of the society remaining at home for civilian practice. Some very interesting replies have been received, and each of the absent members has been highly pleased to know what is going on in medical circles at home.

We wonder how many county medical societies keep their service members informed as to the progress of their home society and send them news notes of general interest.

Doctor Black, by the way, was president of the Illinois State Medical Society just 40 years ago. He is the oldest living past-president of the society, and has constantly worked for not only his own society, but also for those of the medical profession as a whole throughout his 57 years of practice.

His chief hobby has been the collecting of photographs of pioneer physicians. His collection of several thousand pictures has been placed for safe keeping, in the Illinois State Historical Society museum in Springfield, where they are registered as the "Carl E. Black-Illinois State Medical Society Collection". As secretary of the Illinois State Medical Society Committee on Archives, photographs of men in service, members of the Fifty Year Club, and of other members of the society, are being added to this large collection regularly.

It is our opinion that Doctor Black's plan of sending minutes of his meetings to the members in service is a worthy one, and it is hoped that many other county societies will do likewise. This also affords a wonderful opportunity to receive in return, interesting letters from our members in service who have stories to tell which will be valuable records for future generations if they are kept with the permanent society files.

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## A.M.A. COUNCIL ON PHYSICAL MEDICINE

For some years the American Medical Association has had a Council on Physical Therapy. Some months ago in view of the fact that physical agents are used for diagnosis as well as

therapeutic purposes, the Council on Physical Therapy recommended to the Board of Trustees that the name be changed to the Council on Physical Medicine. This suggestion was approved by the Board of Trustees, and it was recommended to the House of Delegates at the last annual meeting that the name be so changed. The House of Delegates concurred in the recommendation and the change in title was made.

Physical Medicine includes the employment of the physical and other effective properties of light, heat, cold, water, electricity, massage, manipulation, exercise and the mechanical devices for physical and occupational therapy in the diagnosis and treatment of disease.

It is stated that in the near future the Council on Physical Medicine will devote more time, perhaps through a special committee, to the many problems of occupational therapy which in itself, is an everincreasing and highly interesting present day subject.

This recommendation of the Council and its approval by the House of Delegates should be commended thoroughly by the Fellows of the A.M.A. throughout the country.

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## THE SIXTH WAR LOAN

Before this issue of the Illinois Medical Journal is off the press, the Sixth War Loan will be well under way. The war news has been good during recent weeks and many people have developed the erroneous impression that the war is practically won. Not until Berlin has been taken by the allied armies will this be true, unless some internal trouble in Germany brings things to a sudden climax. This seems very doubtful from reports emanating from inside Germany at this time.

It does cost money to prosecute invasions successfully. Our troops must be properly fed, given adequate medical care and sufficient ammunitions, as well as hundreds of other essential accessories to permit the war to be won in the relatively near future. Then when the European war is over, we will have much unfinished business in the Pacific area to bring the war against Japan to a successful close. As this is being written we note that General MacArthur and his large force of troops are in the Philippines — not far inland as yet, and meeting with increasing resistance. Here too

is need for money to furnish the needed supplies to insure the successful return of the Islands to their independence. Men who have recently escaped from prison camps maintained by the Japs in the Philippines, only emphasize the well known fact that Japanese prisoners of war are more than ill treated.

The European affair will cost much money even after hostilities draw to a close. It is not planned to obtain the unconditional surrender, then withdraw all troops and permit the Germans to plan for a third and greater world war. Likewise it will be necessary to send more troops, ammunition, food and other essentials to our hard fighting men in the South Pacific and Far East. All this costs money. As our troops advance against the Japanese, our supply lines will be lengthened and it will increase the cost of getting essentials to our fighting forces.

Your country is still at war — are you?

The long range "B 29's" cost \$600,000.00 each, and it will take many more of these fighting fortresses to win the war against Japan. More ships than ever before will be required to transport the essentials, and the total quantity increases as the distance from home ports increases. It has been stated that it will cost more to fight Japan after the European war is over than it has cost to fight both Germany and Japan up to the present time. All this will cost money and will necessitate the liberal purchase of more war bonds.

Illinois physicians have responded liberally to previous appeals from our Government to buy bonds and will not fail to respond to this sixth appeal. Many people buy bonds regularly, then buy more bonds when the War Loan Drives are on. U. S. Bonds are unquestionably the safest investment that can be made today, and every loyal American will do his share in making THE SIXTH WAR LOAN a successful one.

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The danger to others of communicable tuberculosis among elderly persons is great. Many of them are grandparents and it is not unusual to trace fatal tuberculosis in children and others to them. Casparis cited the case of several young Negro maids who had successively died while working in one home, or soon after. Investigation revealed the fact that an elderly white man in this home had communicable tuberculosis which was previously unsuspected. J. Arthur Myers, M.D., Modern Hospital, April, 1944.

## TRAVELING DURING PREGNANCY DOES NOT PREDISPOSE TO MISCARRIAGE

Commenting on a recent study on the incidence of abortion, or miscarriage, among a group of women who traveled during their pregnancy and another group who remained at home, *The Journal of the American Medical Association* for October 21 says that apparently travel does not predispose to abortion or miscarriage and that the principal argument against traveling is the possibility that an expectant mother may have to use such resources as are present at any place where a medical emergency may arise. *The Journal* says:

"A. W. Diddle reports a study on the incidence of abortion among a group of pregnant women who journeyed and a group who maintained a sedentary existence during the period of gestation [pregnancy]. The particular naval hospital and dispensary from which the data were collected served all obstetric dependents of the Navy, Marine Corps, Coast Guard and Army personnel. The position of the clinic was particularly favorable to this type of study, being on an island 127 miles away from the mainland and connected with the latter by means of a rough asphalt and coral highway and a system of bridges. The road in places is corrugated with transverse humps. In order to commute to and from the nearest railroad, 170 miles away, it was necessary for all women to go by bus or car over this course. For a period of observation limited to sixteen weeks there were 289 women who journeyed and 467 who did not. A smaller group, in which 200 women did not journey and 110 did permitted observation month by month for a longer period. Of the 289 travelers who toured before the end of the fourth month 16, or 5.6 per cent, had untimely births as contrasted to 84, or 17.9 per cent, occurring among the control or sedentary series. Based on the 179 protocols [case histories] where the distances covered were known definitely, 46 (25.7 per cent) were multigravidas [had been pregnant several times] and 37 (20.6 per cent) parous [having borne one or more children]. A careful analysis of all the factors involved suggested to the author that neither the distances covered and the method of travel nor the time of the month at which a journey was taken revealed any significant differences in the incidence of abortion. The results of these observations, although involving a small group, suggest that travel by car or bus over the rough stretch of highway covering the keys and over modern roads and by train in the states did not increase the incidence of abortions among travelers as opposed to nonjourneying women. Transportation alone probably did not predispose to abortion, except in 1 case in the series: the woman had ridden a motorcycle a few hours previously. Journeying perhaps had facilitated an interruption of gestation where intrinsic and extrinsic factors were already in action. The principal argument against traveling is that it entails the possibility that an expectant mother may need medical care wherever trouble may arise and with such resources as are present."

# Correspondence

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## THE CHICAGO MEDICAL SOCIETY SECOND ANNUAL CLINICAL CONFERENCE

The Chicago Medical Society is holding its Second Annual Clinical Conference at the Palmer House, Chicago on February 27-28 and March 1, 1945. The sponsoring of this annual clinical conference for physicians of the Middle West has become an important function of the Chicago Medical Society following its inauguration last spring.

Chicago is a great medical center, probably one of the world's greatest, with abundant clinical material and clinicians of national reputation. The program presented at the first conference, last spring, was enthusiastically received by the several thousand physicians who attended. The Committee is already underway in securing speakers on important subjects for the 1945 conference. Exhibits, both technical and scientific, will be greatly increased.

Further information will be given later. In the meantime, early reservations at the Palmer House, Chicago are recommended.

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## COURSE IN OCULAR MUSCLES

Dr. James W. White of New York will give a course in Ocular Muscles at Northwestern Medical School, 303 E. Chicago Ave., December 9-16 inclusive, hours 3-6 and 7-9. Demonstration classes will be held during the day at the time and place convenient to small groups.

Fee \$100.00; one-half due with registration. Registration limited.

S. J. Meyer, M.D.

T. D. Allen, M.D.

Beulah Cushman, M.D., Treas.

25 E. Washington St., Chicago 2, Ill.

## UROLOGY AWARD

The American Urological Association offers an annual award "not to exceed \$500" for an essay (or essays) on the result of some specific clinical or laboratory research in Urology. The amount of the prize is based on the merits of the work presented, and if the Committee on Scientific Research deem none of the offerings worthy, no award will be made. Competitors shall be limited to residents in urology in recognized hospitals and to urologists who have been in such specific practice for not more than five years. All interested should write the Secretary, for full particulars.

The selected essay (or essays) will appear on the program of the forthcoming June meeting of the American Urological Association.

Essays must be in the hands of the Secretary, Dr. Thomas D. Moore, 899 Madison Avenue, Memphis, Tennessee, on or before March 15, 1945.

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## PHI RHO SIGMA SCHOLARSHIP AWARD ESTABLISHED AT NORTHWESTERN UNIVERSITY

At the Founders' Day convocation on September 26, 1944, Dr. Howard B. Carroll, President of Alpha Association of Phi Rho Sigma, Inc., and President of the Medical Division of the Alumni Association, announced that awards have been established at the Medical School to be known as the Phi Rho Sigma Scholarship Awards. The purpose of these awards is to stimulate scholarship in the Medical School among organized groups as well as among the individual students.

The awards are to consist of a suitable trophy

which shall remain the property of Northwestern University Medical School, and shall be placed and maintained on a suitable pedestal in the Archibald Church Library as a constant stimulus to scholarship. This trophy shall be awarded annually to the National fraternity in Northwestern University Medical School having thirty or more active members enrolled as regular students, which has maintained the highest scholastic average during the preceding year. An appropriate inscription shall be added on the base of the trophy designating the winning fraternity. In addition, there shall be two individual cash awards: One to the student who has maintained the highest scholastic average during his or her three years in Northwestern University Medical School; and, the other to the student in the winning fraternity who, in the opinion of that fraternity, has contributed most to their success in winning the trophy. The awards shall be made annually as a part of the Founders' Day Convocation by the President of Alpha Association of Phi Rho Sigma or his designee.

These awards are made possible through the generous gifts of an alumnus of Phi Rho Sigma, who wishes to remain anonymous, which has been deposited in trust with Northwestern University who will make available the proceeds thereof to the Committee on awards. This committee consists of: The Dean of the Medical School, the President of the Alpha Association of Phi Rho Sigma, Inc., the President of the Medical Division of the Northwestern University Alumni Association, and, a member elected by the Alpha Chapter of Phi Rho Sigma.

#### ARMY SURGEON SAYS FIBRIN FOAM IS OF VALUE IN NERVE SURGERY

New Substance Obtained From Human Plasma Stops Bleeding From Small Vessels In Operations On Brain And Spinal Cord

Use of fibrin foam, a substance recently developed from human blood plasma, to check capillary (minute blood vessels) hemorrhages in nerve surgery of the brain and spinal cord, Major Barnes Woodhall, Medical Corps, Army of the United States, declares in *The Journal of the American Medical Association* for October 21, contributed in a large measure to the success of 226 neurosurgical operations in which it was used at Walter Reed General Hospital, Washington, D. C.

He points out that the control of hemorrhage from small or moderate sized blood vessels in such operations by electrocoagulation, wherein an electrically heated hot platinum wire is applied to the end of the vessel, or by the use of a silver clip, is relatively standardized and has been proved satisfactory. The control of capillary bleeding cannot be accomplished by these destructive measures so cotton patties soaked in warm salt solution or muscle stamps have been used. He says that experience has indicated that these methods may be both time consuming and ineffectual in securing complete stoppage of the bleeding and, in addition, may be followed by considerable tissue reaction.

The use of fibrin foam, Major Woodhall reports, promptly stopped the bleeding in each one of the 226 operations and "contributed in large measure to the execution of the particular operation. No clinical untoward reactions that would have been attributed to the use of fibrin foam have been observed. There were but two opportunities to observe a possible tissue reaction to fibrin foam, and these negative observations were consistent with those previously reported [by others]. The application of this method of hemostasis to war injuries of the brain seems most promising."

Fibrin foam, he explains, is prepared from two fractions of human blood plasma and in the dry state appears dull white, dry and brittle. At the operating table rather large fragments of fibrin foam are dropped into solution and then cut or formed into the size and shape required.

Not only does it stop the capillary hemorrhage at the site of the operation but it also appears, from one observation, that fibrin foam may prevent adherence of the nerve root to adjacent tissues and may prevent as well scar tissue formation, Major Woodhall says.

#### TRANSMISSION OF INFANTILE PARALYSIS

"The method of transmission of the virus of poliomyelitis," *The Journal of the American Medical Association* for October 21 says in answer to a query, "has not yet been clearly demonstrated. . . . The virus has been found consistently in the alimentary tract and stools of both patients and contacts. While a large body of circumstantial evidence supports the theory of direct contact from patient to patient, there is also the fact that the virus has been recovered repeatedly from flies trapped in epidemic areas. However, the importance of the fly as a vector has not yet been clearly demonstrated. It is not possible in the present state of knowledge to say whether the contamination of the fly with virus is a result of a disease or a causal factor in it. The seasonal incidence of . . . epidemics, combined with the finding of virus in the human alimentary tract, stools, sewage and flies, lends weight to the contention that poliomyelitis is primarily an intestinal disease such as typhoid and dysentery. . . ."

★ SPEED VICTORY—BUY BONDS ★

# Medicine's Role in the War Effort

## POLICY STATEMENT

Paul V. McNutt, chairman of the War Manpower Commission, issued the following statement on the policy adopted by the directing board of the Procurement and Assignment Service of the War Manpower Commission at a meeting on September 23:

"The war is not yet over and we must continue our efforts to keep the armed services supplied with a sufficient number of doctors, dentists and nurses to meet the critical needs of this period of the war and also fulfil our obligation to the home front.

"In common with the other divisions of the War Manpower Commission, however, the Procurement and Assignment Service is cooperating with those charged with the responsibility for developing demobilization plans. In view of the information collected incident to the mobilization of our medical resources for war, this office can perform many useful services in connection with these demobilization plans in the interest of the members of the professions now in service. The War Manpower Commission wishes to be of whatever service possible but, in common with all war agencies, has no interest in perpetuating its controls beyond the period necessary."

In order that the point of view of the directing board of the Procurement and Assignment Service may be understood by the doctors, dentists, veterinarians, sanitary engineers and nurses, the following statement of policy was adopted at its meeting on September 23:

1. The Procurement and Assignment Service is an organization which was created at the request of these professions to meet a war problem, and in meeting its responsibilities this service has had the support of these professions.

2. As a war agency this service is discharging and will continue to discharge its obligations until the end of the war. It will cooperate with the agencies concerned with the effective utilization of the individual members of these professions who are demobilized before the end of the war.

3. In the directive under which it was created, the responsibilities of the Procurement and Assignment Service did not extend beyond the duration of the war.

4. Therefore it does not contemplate dealing with

peacetime demobilization but will continue its activities, including cooperation with agencies working on demobilization plans, so long as the war continues.

The members of the directing board are Drs. Frank H. Lahey, chairman, Harvey B. Stone, vice chairman, C. Willard Camalier Jr., Harold S. Diehl, James E. Paullin and Abel Wolman.

★ ★

## LIEUT. OLIVER AUSTIN MISSING IN ACTION

Dr. Jean Austin, wife of Lieut. Oliver Austin, who has been missing in action since July 5, will carry on her husband's work. He vanished after taking off on a mercy flight July 5 from Churchill, Canada. His destination was Eskimo Point, 160 miles north, where he hoped to check an epidemic among the Eskimos and forestall danger of its spreading to the United States Army Air Force station near Churchill, where he was post surgeon. Searching parties found the plane wrecked on July 9 on a submerged reef in the Hudson Bay. The pilot's body was found but no trace of Lieutenant Austin. Dr. Jean Austin, who is resident surgeon at Cook County Hospital, Chicago, plans to leave for the isolated Hudson Bay outpost, 1,000 miles north of Winnipeg, where there are no other doctors for a distance of 600 miles, as soon as possible. Drs. Jean and Oliver Austin both graduated from Northwestern University Medical School, Chicago, in 1943 and 1941, respectively. Dr. Oliver Austin entered the service in September 1943.

★ ★

## MALARIA EPIDEMIC DANGER IN U. S. IS REMOTE

Major O. R. McCoy, chief of the Tropical Disease Control Division in the Preventive Medicine Service of the Office of the Surgeon General of the Army, recently stated that he believed there is little danger of any serious epidemic of malaria in the continental United States traceable to soldiers returned from malarious battle fronts. It was reported recently that among soldiers the malaria situation has improved to a point where the effectiveness of combat units is no longer seriously threatened so long as "atabrine dis-

cipline" is properly maintained. Nevertheless some civilian authorities have indicated their fear that the return of malaria victims to the homeland might cause new epidemics or reestablish the disease endemically in areas which have not known it for several generations. Major McCoy stated that such fears are unwarranted. He pointed out that there is no reason to presume that mosquito control work, on which our principal dependence has been placed for malaria control, will not continue to operate effectively despite the presence of returned soldier victims. Brig. Gen. Hugh J. Morgan, head of the Medicine Division, who is chief consultant in medicine to Major Gen. Norman T. Kirk, Surgeon General of the Army, pointed out that the research work and experiences of the Army, Navy and other governmental agencies in malaria during this war have shed much light on many phases of the disease. "We are able to assure the American public that there is no reason for unfounded fears of malaria, if the disease is properly treated," he said.

Every soldier in a malarious area receives "suppressive treatment" — a small dose of atabrine six days a week, which controls the disease if he should contract it while in the lines and keeps him functioning as part of his unit. If the disease should develop, or if it appears after he is withdrawn to a non-malarious rest area, he is given substantially larger curative doses, repeated each time the disease reappears. Most victims of vivax malaria have one relapse. At the same time the soldier is trained to protect himself against the mosquito which transmits the infection. He is supplied with mosquito netting, with mosquito repellents and "mosquito bombs" to clear out his tents or living quarters, and he is taught not to expose himself at sunrise or sunset.

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#### TROOPS EXPOSED TO FILARIASIS PARASITE BEING OBSERVED AT WAKEMAN GENERAL HOSPITAL

More than five hundred servicemen who have been exposed to filariasis are being observed at the Wakeman General Hospital, Camp Atterbury, Indiana. Although the presence of the disease has been established in only a small percentage, the condition of none of the men is serious. The men were returned to the United States in accordance with War Department policy of evacuating military personnel from endemic regions after exposure to the disease in order to avoid complications that might develop following prolonged exposure. All the men just returned were evacuated after a comparatively short exposure to filariasis, and there is little likelihood that the more serious permanent consequences, including elephantiasis, will develop.

Transmission of the disease is possible only when immature forms of the parasite are circulating in the blood of an infected person. Such larval forms must be taken up by a mosquito in order to complete their development. None of these immature forms have been found in the blood of any of the returned soldiers. Consequently there is no risk that they will spread

the disease in this country. Most of the men will receive furloughs, after which they will return to the convalescent hospital. It is expected that the majority will return to duty within a short time.

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#### NEW VACCINE TO PROTECT ARMY AGAINST SPREAD OF INFLUENZA

The War Department announced recently plans for the procurement and possible use of a vaccine to combat the spread of influenza in the Army, should the disease occur in epidemic form. The plans are based on evidence presented by the Commission on Influenza under the Army Epidemiological Board. The vaccine will not be administered routinely but will be given only on definite indication of the threat of influenza and only to personnel under risk of exposure to the disease. A statement of policy and a summary of the evidence for the prophylactic value of influenza vaccine was recently issued to all medical officers in a technical bulletin from the Office of the Surgeon General.

One of the main projects of the Board for the investigation and Control of Influenza and Other Epidemic Diseases in the Army, ever since its establishment in 1941, has been the development of protection against influenza. This board, now called the Army Epidemiological Board, is under the presidency of Dr. Francis G. Blake, Dean of Yale University School of Medicine, New Haven, Conn. Under this board the Commission on Influenza, of which Dr. Thomas Francis Jr., professor of epidemiology at the University of Michigan School of Public Health, is director, was asked in 1943 to carry out a controlled clinical trial of the prophylactic efficacy against epidemic influenza of a concentrated vaccine containing the killed influenza viruses types A and B. In cooperation with a number of civilian and military agencies an extensive investigation was carried out. On the whole, the results showed that there was a reduction of about 75 per cent in the incidence of influenza among the vaccinated as compared with the unvaccinated controls and that loss of manpower hours was reduced because the illness in vaccinated persons was milder and shorter. The vaccine which was used was developed by Dr. Thomas Francis Jr., Dr. Jonas E. Salk and their associates.

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#### NEW PENICILLIN STUDY INSTITUTED AT FORT BRAGG

Dr. Charles Rammelkamp, member of the commission on Acute Respiratory Diseases, Epidemiological Board, Preventive Medicine Service, Office of the Surgeon General, and Capt. William Leifer, M. C., Regional Hospital, Fort Bragg, North Carolina, recently spent several days in the Office of the Surgeon General conferring on the new method of administering penicillin developed by Capt. Monroe J. Roman-sky, M. C., at the Army Medical Center. The new technic prolongs the action of penicillin by suspending it in a mixture of 4 per cent beeswax and peanut oil.

Dr. Rammelkamp will act in a consulting capacity with Dr. Leifer, who is instituting a study of the method at Fort Bragg Regional Hospital. It is believed that the new method will have important effects on the use of this agent.

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#### INCIDENCE OF POLIOMYELITIS AMONG U. S. TROOPS

In the two week period ended September 2, 20 cases of poliomyelitis were reported by army installations in the United States. This represents a slightly higher incidence than for the corresponding period last year. The total incidence since the first of the year is somewhat lower than in the corresponding eight month period of 1943. While most of the cases have occurred in the states which have a high civilian incidence of the disease, they have been widely scattered.

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#### AVIATION MEDICAL EXAMINERS

Graduating exercises were held at the School of Aviation Medicine, Randolph Field, Texas, on July 26, following completion of the course for aviation medical examiners. The list of medical corps students from Illinois graduating follows: John I. Brewer, Lieut. Col., Chicago; George J. Cooper, Captain, Chicago; Philip Lerner, Captain, Chicago; Clifford H. Peters, Captain, River Forest; William C. Scott, Captain, Elkhart; Carel van der Heide, Captain, Chicago.

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#### CIVILIAN INSECT CONTROL PROGRAMS AFTER WAR

At the end of the war the United States will be in an extremely favorable position to wage a major campaign against disease-carrying insects as a result of the tremendous effort the Army has made to defeat them in combat areas throughout the world. Efficient methods of insect control have been worked out and thousands of men have been trained in the techniques developed. The men and the methods will be available for mosquito and other insect control programs, once peace and victory are achieved. They will make possible renewal of civilian efforts to eliminate the nuisance of the mosquito and at the same time guard against the diseases the mosquito is known to transmit, such as malaria, dengue and yellow fever and perhaps encephalitis. The Army also developed new insect repellants, effective not only against mosquitoes but also against mites, fleas and other insects known to be disease carriers.

Among the new weapons to be available to civilians after the war will be DDT, the new chemical insect killer, with which the Army solved the problem of typhus in Italy by destroying the body lice which transmit the infection. DDT is used in the Army in heavy oil solution for spraying on water or in light oil solution for spraying on walls and furniture. It is as effective against mosquitoes as it is against lice.

#### LIMITED SERVICE OFFICERS EXAMINED FOR OVERSEAS DUTY

Because of the urgent need for Medical Corps officers for overseas assignment, a survey is being made of all those in the army service forces who are now on permanent limited service with a view to their possible reclassification. Many, it is felt, can be assigned to communication zone installations overseas, where they can perform duties similar to those in the zone of the interior. Medical Corps officers will not be considered disqualified for overseas service if they can be expected to render effective professional service without appreciable risk of aggravating physical defects or if they have histories of defects which are not demonstrable and have not resulted in hospitalization while in service.

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#### ARMY'S RECONDITIONING PROGRAM MAY INFLUENCE CIVILIAN HOSPITALS

Major Henry B. Gwynn, of the Reconditioning Division of the Office of the Surgeon General, recently stated that the strides being made in the operation of the Army reconditioning program will probably lead to radical changes in the civilian hospital of the future. Civilian hospitals, capitalizing on the progress made by the Army's reconditioning program, will probably include motion picture theaters, gymnasiums, public address systems and areas for physical and occupational therapy in their buildings of tomorrow. Anticipating the objection of increased costs in such a program, it was pointed out that the Army is finding that hospitalization time is curtailed from 10 to 33½ per cent as a result of reconditioning. If this estimate holds true even to some extent in civilian practice, Major Gwynn stated, the lower incidence of complications and the shortened convalescence at home before resuming normal activities will more than pay the additional cost.

The prospects for the adoption of this reconditioning program by civilian hospitals will depend on public opinion and the attitude of the medical profession, Major Gwynn said, and ideas which have been in vogue for several hundred years will be changed only when the facts justify it.

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The age-old war between man and the tubercle bacillus has killed more people than all the wars between nations. After centuries of bondage to this killer, man has begun to free himself in recent years. Although certain biologic and economic factors may have aided, medical science has at least provided control devices which are effective against his enemy. He is in retreat, but not yet conquered. In fact, he threatens a successful counter-attack through conditions imposed by war and economic disturbance. This attack is aimed toward industry. We can contain the enemy and again throw him back if we concentrate our fullest forces in industry. The mass X-ray method of finding cases is our new rocket gun. This is the time and place to use it. W. P. Shepard, M. D., Rocky Mountain Med. Jour. June, 1944.



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# ILLINOIS MEDICAL JOURNAL

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# Original Articles

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## THE RECOGNITION AND MANAGEMENT OF SURGICAL LESIONS OF THE SIGMOID AND PELVIC COLON

JOHN A. WOLFER, M.D., F.A.C.S.

CHICAGO

In the majority of instances diseases of the colon manifest themselves by altering the colonic motor mechanism, by changes in the character and constituents of the stool and subjective symptoms such as pain, distension, flatulence, nausea and vomiting and occasionally by the presence of a mass. When any of these symptoms and findings obtain a carefully and methodically conducted study should be instituted, keeping in mind the possible pathologic conditions.

The surgeon constantly should be mindful of the colonic diseases that have no special surgical significance except in the diagnostic study. Chief among this group are amoebiasis with its complications, ulcerative colitis and the spastic colon. Amoebiasis may be present without the presence of diarrhoea or even a history of the rather characteristic diarrhoea.

This paper will be restricted to a discussion of the surgical lesions of the sigmoid and pelvic colon in order to simplify the problem and allow for a more specific and detailed discussion of these lesions.

A survey indicates that three pathologic conditions stand out as surgical problems: — polyposis, carcinoma and diverticulitis.

*Polyposis.* Polyps of the colon, in the belief of the speaker, are of three varieties: Those that result from an irritative process such as forms of ulcerative colitis and are a secondary manifestation. Such polyp-like growths can be found in other parts of the body and in most instances disappear after eradication of the primary disease. The single polyp usually some form of adeno-myoma or myo-fibroma that may cause an intussusception is rather rare. The generalized polyposis that most likely is hereditary is the form that concerns the surgeon greatly. It frequently makes its appearance in early childhood. The process involves in many instances the entire colon but may have a segmental distribution, the sigmoid and pelvic colon frequently being the areas involved. When many polyps are present and especially when the sigmoid and pelvic colon are extensively involved subjective symptoms are common. There is abdominal discomfort with at times severe crampy pains and changes in the motility of the colon and character of the stools are present. Diarrhoea is common and blood and mucus are frequently found in the stool. The bleeding not infrequently may be so severe as to lead to a profound anemia. The diagnosis is made from the history, a carefully conducted radiologic study, the character of the stool, and by a direct visual inspection with the proctoscope or sigmoidoscope.

In attempting to provide a therapeutic procedure the nature of the disease must be evaluated. The single polyp when producing symptoms may be removed with excellent results.

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Presented before the Section on Surgery, 103rd Annual Meeting, Illinois State Medical Society, May 19, 1943.

The secondary polyps as a rule disappear after correction of the primary disease. When this is impossible the problem is similar to the treatment of the diffuse hereditary type. It is the consensus that the outlook in cases of diffuse polyposis of the colon is extremely bad. In some instances carcinoma develops in early life and practically every case if the individual lives to middle life succumbs to malignant disease. Even though individual lesions that may be visualized are removed those remaining have a tendency to develop into carcinoma. If the process involves the entire colon and the patient is in good physical condition, colectomy in stages perhaps offers the individual case the only hope. If the process is confined to the sigmoid or pelvic colon, this segment may be removed however it is my impression that the procedure lacks thoroughness since polyps most likely are left behind to cause further trouble. The removal of the accessible polyps through the sigmoidoscope is a questionable procedure.

*Carcinoma.* The usual symptoms of carcinoma of the sigmoid and pelvic colon will not be repeated. Attention however should be called to some subjective reactions that are frequently not correctly interpreted. Low grade to moderate obstruction of the terminal colon often produces a group of symptoms that are typical of gallbladder disease. In fact they are so typical of the dyspeptic symptoms of gallbladder disease that colon pathology is not thought of. The distress immediately after eating associated with belching, sense of distension with nausea and at times vomiting certainly suggest gallbladder disease yet are encountered frequently in cases with carcinoma of the sigmoid. It is possible that a gastro-colic reflex incites colonic contractions when food is introduced into the stomach. With an obstruction in the lower colon, the contractions are not effectual in propelling the colonic contents. This in turn incites another reflex leading to changes in the gastric motor mechanism with possibly a pylorospasm. Whatever the mechanism is, modifications of such subjective reactions are frequently encountered in perfectly obvious colonic obstruction. At times persistent vomiting is present. This may be of such a degree to lead one to suspect an obstruction at the gastric outlet, the symptoms of colonic disease being completely overshadowed. In most

instances however a carefully elicited history will present evidence suggesting colonic disease if the history is evaluated properly with cancer of the sigmoid in mind. The usual error is that too frequently the history is taken by one who is unconsciously trying to have it confirm a diagnosis already in mind. The early symptoms of gastrointestinal cancer are often very vague and may simulate those of many other conditions. It is amazing to note that frequently even in well conducted clinics among patients who are under constant observation, inadvertently one will relate some symptom to direct attention to the stomach, rectum or colon and upon examination a far advanced carcinoma is found. The mistake is in the fact that cancer is not thought of enough; there is not sufficient recognition of its prevalence and its insidious onset.

Since radiologic examinations are depended upon for the diagnosis, it is unwise to begin such an examination in the suspect case by introducing the opaque material into the upper gastrointestinal tract. The examination should be begun with a barium enema and if no lesion is found in the colon it may proceed in the usual manner. Too frequently a digital examination of the lower intestinal tract is not carefully made or indeed may be entirely omitted. The rectal, vaginal or bimanual examination is extremely valuable. In some instances by having the patient stand a freely movable mass may be felt that does not reach the examining finger with the patient lying down. Instrumental examination such as with the proctoscope and sigmoidoscope give valuable information. These examinations with rigid instruments can be carried out without discomfort or danger if certain simple precautions are heeded. They should always be preceded by a careful digital examination so that if an obstruction is present its location and degree will be known. The instrument should always be advanced under direct vision and when the lesion is reached it may be inspected, a biopsy taken and its lumen examined if possible. In suspect cases repeated stool examinations after the patient has been on a meat free diet for several days may add to the pertinent information. It must be remembered that blood in the stools may be accounted for on a number of counts. If blood such as may come



Figure 1. Roentgenogram of a carcinoma of the sigmoid. Patient entered the hospital completely obstructed. A colostomy of the transverse colon was performed. Approximately two weeks later a barium enema was given revealing the exact site of the carcinoma.



Figure 2. Barium enema showing left colon segment. Same patient shown in figure 1. This film was taken some weeks after the resection of the sigmoid with an end-to-end anastomosis. The colostomy had not been closed as yet. The segment has a normal lumen and can function normally.

from a nose bleed or bleeding gums is not swallowed, it must be explained on the basis of a bleeding open lesion somewhere in the gastrointestinal tract. The location of such a lesion must then be located by further study.

When considering the treatment of carcinoma of the sigmoid and pelvic colon the cases must be divided into two groups: those that are highly or completely obstructed and those that have minimal or no obstruction. In the obstructed cases any major corrective procedure should be preceded by a colostomy, preferable of the transverse colon. Time should be allowed so that the colostomy may function well and to cleanse the distal segment. In practically every instance when there has been a high grade obstruction for some time the bowel wall proximal to the obstruction will be edematous and thickened moreover there is a remarkable dilation of the lumen. If ample time is given after colostomy the dilation will decrease so that the lumen is quite like that of the distal segment and the edema and thickening will have disappeared. It is necessary to wait for this to occur since any sutures placed through the edematous bowel wall may cut through thus leading to a leakage also it is not desirable to try to do an end-to-end anastomosis of a dilated segment to one that is

much narrower. These restorations usually take place in two to three weeks depending upon the degree of change. This period of waiting gives ample time for general pre-operative preparation and accurate radiologic study of the isolated segment. (Figure 1) The abdomen is then opened and a careful exploration made noting especially the liver and the regional lymph node areas. Nodes in the adjacent mesentery are no contraindication for resection. We employ an end-to-end anastomosis because it can be done more rapidly than a side-to-side with less suturing and seems to give better functional results. When it has been established that the anastomosis can function, the colostomy is closed. (Figure 2)

In those cases that have a minimal obstruction the colon should be cleansed thoroughly by repeated colonic flushing. Our practice is to give six ounces of mineral oil at night and the following day the colon is lavaged with large quantities of water. This procedure is carried out daily until we believe the colon to be cleansed of its contents. During this period the patient is on a low residue diet and the prescribed pre-operative regimen. Thoroughness and not haste is the watchword. The corrective procedure is then carried out as previously described.

We employ several details in the resection procedure that add definitely to the safety and efficiency of the resection. After the lesion is isolated and examined and the exploration is completed, the sigmoid is mobilized by cutting the lateral peritoneal reflection. The sites of section of the bowel is determined by the extent of the lesion. The mesentery is then carefully studied to isolate a satisfactory blood vessel to the arcade in the vicinity of the contemplated section. This is important in order that the sectioned ends of the bowel have an adequate blood supply. The site is marked by perforating the mesentery at either end of the segment to be removed. The mesentery is then carefully divided toward its root care being taken not to injure the essential arteries. At its base the mesentery is securely ligated and cut across. Soft clamps are then placed across the bowel at the site of section leaving an ample interval between the clamps for cleansing away fat tags especially on the mesenteric side. The bowel is then cut across leaving a segment extending beyond the clamps. This open segment is cleansed with saline solution and then swabbed with 5 per cent phenol solution and 50 per cent alcohol. The anastomosis is then done in the usual manner using fine chromic cat gut for the through and through sutures and fine silk, interrupted, for the sero-muscular layer. It is important that no fat tags separate the serous layers at the suture line also that the inverted cuff is not over 5 mm. in width. Just enough sutures should be used to bring about an accurate approximation of the serous coats. Too many sutures cause strangulation of tissue and may lead to necrosis and leakage. Approximately six grams of sulfanilamide are placed into the peritoneal cavity before closing the peritoneum and an additional two grams are placed in the abdominal wall, usually under the skin. Nothing is given by mouth for from four to five days, the fluid balance being maintained by the administration intravenously of saline and dextrose solutions. If there is more than a short period of immediate post-operative distress with vomiting, a nasal tube is inserted into the stomach and constant suction maintained. In the majority of cases we have not found this to be necessary. We are in accord with the theory that with distress and retching, air is swallowed and it is

this swallowed air that distends the gut. With constant suction the swallowed air is aspirated.

With very low sigmoidal, recto-sigmoidal and rectal carcinoma, after preparation, a one stage abdomino-perineal procedure is employed. Before the operation when the patient is on the operating table, the bladder is emptied by catheter and an ounce of aqueous solution of methylene blue is instilled into the bladder. This is especially valuable when the mass is adherent to the bladder or when extensive dissection in the pelvis is necessary since the dye will reveal any accidental injury to the bladder. The perineal wound is packed with gauze in the meshes of which sulfanilamide is placed using approximately three grams. This inhibits infection and in many cases the pack when removed is quite clean and without odor. Following this the wound is irrigated daily with .85 per cent solution of sodium sulfathiazol solution.

The question often rises as to what attitude should be taken when there are extensive and distant metastases. When there is no obstruction and the liver metastases are far advanced no resection should be done since the progress of the disease is rapid and the patient will succumb before obstruction takes place. With no liver metastases discernible but with numerous mesenteric glands, a resection should be done. We have one patient alive and free of disease as far as can be determined 14 years following such a resection. In this case at the time of operation all glands examined in the resected mesentery revealed carcinoma. With large rectal masses that are adherent to the pelvic wall and which do not subside materially after a colostomy, a resection is not warranted as a rule. Recognition must be taken of the fact that such tumors often cause much pain however too frequently after resection as soon as the patient has recovered from the effects of such an extensive operation recurrences take place not only in the pelvis but along a fistulas tract that does not heal and is very painful.

*Diverticulosis and Diverticulitis.* Uncomplicated diverticula of the sigmoid are common and may cause few if any mild symptoms. Mild inflammatory attacks are usually associated with fever, local pain and perhaps tenderness and



Figure 3. Roentgenogram taken with a barium enema in a patient presenting a mass in the left lower abdomen palpable through the abdominal wall, vaginally and rectally. There was moderate obstruction. Diverticula definitely noted also a limited constriction very suggestive of carcinoma.

rigidity. These attacks usually subside in a few days. The more severe attacks associated with the formation of a granuloma or an abscess become a real problem. In many instances the question rises as to whether the process is simply inflammatory or whether there is present also a malignant process. Since diverticula are so common it is always possible that a malignant process may intervene. The persistent presence of blood in the stools suggests ulceration and carcinoma. Radiologic findings give perhaps the most conclusive evidence. If only one diverticulum is infected with the formation of a mass it usually presents the evidence of extrinsic pressure unless there is an associated edema of the bowel wall. With this the constriction or narrowing of the lumen of the bowel is longer than is found in carcinoma and it has a tendency to change its characteristics from day to day as the inflammatory process and edema vary. Likewise the mass that may be palpated will vary in size, consistency and its degree of tenderness. When the mass is solely inflammatory several weeks of treatment such as with very warm saline irrigations of the pelvic colon with external heat will often bring about a very marked change in the radiologic findings with at times complete disappearance of the



Figure 4. Barium enema in same patient shown in figure 3. She had been on warm rectal irrigations and complete rest. This film was taken one month after that shown in figure 3. The mass had decreased in size markedly and there was practically no tenderness. This film still shows the constricted area with more obstruction however than shown in figure 3. A diagnosis of carcinoma and diverticulitis was made. At operation there was found a mass about the sigmoid. This was adherent to the lateral pelvic wall and a loop of small bowel was incorporated in it. The entire mass with the loop of small bowel was resected and an end-to-end anastomosis performed both of the sigmoid and ileum. The patient made an uneventful recovery. The mass revealed a number of diverticula in sundry stages of inflammation and an annular carcinoma.

narrowing. If a carcinoma is present, the mass may decrease in size yet the obstruction persists or may even increase. (Figure 3) In the presence of diverticulitis with a co-existing carcinoma there will be seen a relatively short narrowing that persists, the remaining irregular or feathery narrowing being transitory. (Figure 4) Often the details cannot be shown on films unless a number are taken in the lateral or oblique planes. It is desirable to obtain all the information possible before resorting to an exploratory laparotomy since at the operating table it is extremely difficult to differentiate between carcinoma with peritoneal reaction and diverticulitis. The diagnosis made preoperatively as a rule is more accurate than that made at the operating table.

The treatment of the simple acute diverticulitis is rest, a bland low residue diet and the judicious use of mineral oil by mouth. The use of very warm saline enemas gives great relief and seems to cut short the course of the disease. Surgical interference in the presence of a granuloma is very hazardous and should be avoided. If an abscess forms it should be treated like an appendiceal abscess in that no attempt should be made to drain it until it becomes fixed to the abdominal wall. The transperitoneal drainage of such an abscess usually terminates fatally. In select cases that do not subside a colostomy may facilitate recovery from the acute stage. The more or less localized form that has a tendency to exacerbate but never completely subsiding offers an opportunity for surgical therapy. During a quiescent stage or during an interval when the inflammatory symptoms are mild, resection of the involved segment of the colon with an anastomosis will yield good results and carry a minimal danger. In such cases sulfanilamide introduced into the peritoneal cavity or used perenterally affords a distinct aid.

When a differential diagnosis between carcinoma and diverticulitis cannot be made, the patient should be prepared adequately for colon surgery. If on exploration it is found that the process is extensive, a colostomy should be made completely diverting the fecal stream. Following the colostomy the terminal loop of colon can be irrigated frequently. The complete rest of the segment devoid of fecal contents favors resolution of the inflammatory process. During a second operation the involved segments can be freed and resected. If sufficient of the pelvic colon remains distal to the site of resection some form of anastomosis should be made. If not the colostomy must remain as permanent.

The crux of colon surgery is adequate pre-operative and post-operative management; it being conceded that skillful operative technique is used. Every individual case demands specific attention and no dogmatic rules can be prescribed. Those patients that are obstructed and are divitilized from excessive vomiting and lack of food intake demand scrupulous study and attention. The dehydration must be corrected at once. The anemia combatted by blood transfusions. Studies should be made to determine the blood chloride and protein levels. Prac-

tically all are markedly deficient in vitamin C. Intravenously administered saline solution usually will correct the low chloride level however occasionally — in those that have vomited excessively for a period of time — may need ammonium chloride. With a persistent hypoproteinemina and if the patient cannot retain or utilize proteins given orally beside the use of plasma we have resorted to the intravenous administration of amino acids. All cases are given large amounts of vitamin C, administering one gram intravenously daily. This is continued after operation for a week. All corrective surgery should be deferred until the patient has been brought to an optimal stage. Occasionally a completely obstructed patient that is not seen until there is marked distension, will have to be operated upon after a correction of the dehydration and one or more blood transfusions, a rapid exploration with colostomy only being done. At times it requires considerable courage to defer surgical interference in the presence of a high grade obstruction. It can be reiterated that the time is well spent and will definitely reduce the mortality rate if it is utilized to the fullest extent. The criterion always is the condition of the patient and not the convenience of the family, the consultant or the surgeon.

#### DISCUSSION

Dr. Alfred A. Strauss: (Chicago). I am very much interested in Dr. Wolfer's statement that occasionally in the presence of diverticulitis carcinoma of the colon occurs. It is also true that if the diverticulitis does not subside in a given time a block resection should be done. We do not believe in primary resection without a preliminary transverse colostomy or preliminary ileostomy.

I agree that the trend at present is toward primary resection of the colon without preliminary colostomy or ileostomy but those that advocate this have a mortality of five to eight, and even 10%, while with a transverse colostomy or preliminary ileostomy, the mortality is 1% to 2%. This difference of mortality is not due to difference in surgical skill, but principals involved.

When you do a preliminary ileostomy, which we have practiced in all our cases in the last 25 years where a section of the colon is to be removed from any cause, you accomplish the following facts:

1. You side-track the fecal stream
2. The empty colon contracts and becomes physiologically inactive

3. You do away with the inflammatory process in the colon, especially if the lesion is an obstructive one
4. It prevents leakage and local peritonitis and wound infection since there is no fecal stream over the anastomosis

And this explains the lower mortality when preliminary ileostomy is performed several weeks before colon resection is attempted.

## PRACTICAL POINTS IN THE RECOGNITION AND MANAGEMENT OF CORONARY DISEASE

O. P. J. FALK, M.D.

ST. LOUIS, MISSOURI

Prompt relief of symptoms, control of complications and improvement in recovery rate in acute coronary episodes are to a great extent contingent upon prompt and accurate recognition of the earliest clinical expression of angina pectoris, impending occlusion, acute coronary insufficiency, or actual myocardial infarction.

### A. *Angina Pectoris*.

Since the earliest expression of true angina pectoris is subjective, accurate diagnosis may rest entirely upon the history. Constricting substernal pain or pressure sense or pain in the lower chest or epigastrium radiating to the left shoulder or arm, brought on by physical effort or emotional stress, are likely to be due to angina pectoris, particularly when relieved promptly by rest or nitrites.

On the other hand, a precordial ache or sticking pain, not directly related to effort is often attributable to chronic fatigue or anxiety states, excessive smoking or digestive disorders. These functional precordial pains might well be termed *dolor pectoris*.

Among other conditions giving rise to anginal-like pains, one of the most frequent simulators is esophageal spasm, which may cause disturbing substernal pains often referred to the left shoulder or arm. This pain is likely to be influenced by nervous tension and tends to be relieved by swallowing bland liquids. It may have the same distribution and radiation as anginal pain and is severe enough at times to produce pallor and sweating, so as to simulate coronary occlusion. This pain is often directly related

to swallowing however, and never to effort or stress. This disturbing simulation to angina is usually seen in nervous high strung people, particularly among heavy smokers.

Anginal pain may follow in the wake of an attack of paroxysmal tachycardia or paroxysmal auricular fibrillation because of relative anoxemia brought about by the extreme cardiac overactivity. Unless questioned closely, the subject may not recall the antecedent palpitation or rapid pounding because of the focusing of his attention to the dread agonizing pain which follows. Similarly, spontaneous hypoglycemia may induce anginal pains in a young individual free of organic heart disease, or provoke attacks in a coronary subject, because of the marked increase in cardiac activity plus inadequate fuel, associated with a bout of hypoglycemia. Such attacks often come on during rest, three to four hours after meals. Periodic blood sugar determinations usually furnish the necessary evidence for diagnosis.

Left shoulder pain is often seen in coronary disease, but in itself is so confusing because of its frequent relationship to muscle and joint conditions, that definite differential diagnosis must be based upon associated collateral symptoms and findings.

Left diaphragmatic irritation may produce pain in the epigastrium or substernal region radiating to the left shoulder. If inflammatory in nature the pain is usually influenced by deep breathing, and is stabbing or sticking in character. Pressure pain from gastric or splenic flexure distention is less easily differentiated. The distention pain is apt to be relieved by belching or passing gas or bowel movement, and is not directly related to effort. On the other hand, anginal subjects not infrequently develop aerophagia, so that they may present a dual symptomatology. Only a careful, exacting history with critical analysis of the subjective manifestations will unravel such an enigma.

Esophageal hiatus hernia occasionally presents a diagnostic problem. The pain may exactly simulate angina, but is not related to effort but to position, being worse on lying down. The differential diagnosis can readily be made by chest and stomach fluoroscopy.

Referred pain from thoracic spondylitis causing "intercostal neuralgic pains" not infre-

From the Department of Internal Medicine, St. Louis University School of Medicine. Read before Post Graduate Conference, Decatur, Illinois, October 26, 1944.

quently presents a differential problem. This pain more often appears on lying down, and can usually be verified by finding reduced spinal motility of the spine and/or x-ray changes.

The pain of acute pleural adhesions may simulate the anginal syndrome. Myositis and fibrositis of regional musculo-fibrous structures must always be considered in a differential survey, as must cervical rib, root pains from cord tumor, herpes zoster, etc. Mediastinal or pulmonary conditions will be ruled out by x-ray examination. In the differential diagnosis of coronary pain, x-ray examination is often of equal importance to electrocardiographic findings, which are admittedly unrevealing in about one-fourth of true angina cases.

The gastro-intestinal conditions simulating angina are too well recognized to merit more than passing comment. Where gall bladder, colon or stomach disorders, functional or organic, simulate anginal symptoms, a careful analytical history will nearly always elicit some gastro-intestinal implications justifying appropriate investigation.

#### *B. The Recognition of Impending or Threatened Occlusion.*

There are three situations that are especially suggestive of the imminence of complete closure developing upon antecedent coronary narrowing.

The first is a history of anginal pains brought on by ever lessening degrees of efforts or stress. The second is the appearance of anginal attacks during rest, with a history of preceding effort angina. The third is true anginal pain recurring more or less rhythmically at ever lessening intervals, or an unusually prolonged attack not responding to the accustomed measures of inducing relief.

*C. Acute Coronary Insufficiency.* Acute coronary insufficiency may occur in a heart with damaged coronaries, under circumstances which bring about a relatively prolonged myocardial ischemia resulting in irreversible changes and consequent infarction. The provoking circumstances may be increased or prolonged cardiac overload, stepping up the demand on coronary flow beyond its capacity to maintain. On the other hand, acute coronary insufficiency may result from an acutely reduced coronary supply associated with hemorrhage, shock, dehydration

or severe debilitating illness in a coronary subject.

#### *D. The Recognition of Actual Myocardial Infarction.*

It should be borne in mind that it is the myocardial infarction rather than the coronary occlusion which usually precedes it, that produces the symptoms and signs associated with the occlusion syndrome, characterized by agonizing chest pain, shock, fever, leucocytosis, increased sedimentation rate, lowered blood pressure and characteristic electrocardiographic changes. Prompt bedside recognition is imperative for assuring the proper protective management of myocardial infarction, thereby reducing mortality to a minimum.

The more typical occlusive episodes with ensuing infarction are readily recognized. Certain atypical expressions may pass unheeded and require constant clinical vigilance to avert tragic oversight on the one hand, and thoughtful, accurate judgment to veer away from unwarranted diagnoses and the attendant unnecessary anxiety, on the other. Accurate differential diagnosis of atypical myocardial infarction is not always possible, but mistakes will be minimized by infinite care in marshalling all available clinical data and rendering a *tentative* diagnosis where any reasonable doubt exists, until further supportive evidence is at hand.

Certain suggestive features favoring a positive diagnosis in a borderline case include a cardiovascular family tendency, a history of antecedent hypertension or diabetes, (especially important in a woman under seventy), or the possession of a high strung temperament by a sedentary, over-nourished man. Substernal pain, accompanied by restlessness, or unexplained, unheralded and disconcerting epigastric discomfort referred upwards, all justify suspicion of an atypical coronary attack, and should be given the benefit of absolute rest, adequate relief of symptoms, and careful observation for changes in blood pressure, temperature, leucocyte count, sedimentation rate and electrocardiographic findings.

#### *E. Important Points in the Management of Acute Coronary Episodes.*

*Angina Pectoris.* Aside from the occasional case due to closure of coronary ostia from syphilitic aortitis, in which case the signal importance

of cautious therapy, with avoidance of arsenicals in the initial phases is well understood, the vast majority of true anginal syndroms are referable to relative ischemia of the myocardium, when effort or stress calls for more blood than can be delivered by the narrowed lumen of an atherosclerotic coronary. More important than drug therapy is teaching the subject to live within the limits of his coronary capacity, avoiding by a most carefully conducted plan of living every possible physical, mental and emotional cause of attack production. Correction of associated conditions such as obesity, diabetes, paroxysmal tachycardia or anemia is naturally important. Admonition to avoid exertion after meals, to take a rest in the course of the day, the cultivation of tranquility, and adaptation to a lowered plane of energy output represents the sine qua non of successful management. Nitroglycerine is the most practical method of controlling the attack, and more particularly for the prevention of seizures found by experience to follow certain unavoidable activities. Potassium iodide at intervals seems to have earned a position in the management of these conditions, although its exact pharmacologic indication and action has not been established. Papaverine in  $1\frac{1}{2}$  grain dosage, three times daily, appears at the present time to be our most valuable available coronary dilating drug, along with aminophyllin and phenobarbital which may be helpful in certain cases, probably better given at intervals than continuously, week in and week out. The use of niacin, because of its recognized vasodilatory effects may be justified, although its effectiveness has not yet impressed itself upon the writer.

#### *Impending Occlusion or Acute Insufficiency.*

The management of these conditions include absolute physical and mental rest, one grain of Papaverine intravenously, followed by morphine if necessary, the employment of nasal oxygen when available, and intravenous aminophyllin is often indicated. In the meantime, the development of actual infarction must be carefully watched for by observation of the temperature, blood pressure, sedimentation rate, and sometimes serial electrocardiograms.

*Actual Myocardial Infarction.* The actual attack of myocardial infarction calls for a con-

tinuation of the measures advocated for suspected impending infarction, plus the use of three grains of quinidine sulphate three times a day, particularly in those cases characterized by frequent extra-systoles, in order to minimize the possibility of fatal ventricular fibrillation. Abolition of reflex vagus vaso-constriction with atropine in  $1/75$  gr. dosage appears to be a sound measure, even when no more than a well founded suspicion of threatened occlusion or infarction exists. It is not my practice to begin aminophyllin by mouth until five or six days following the establishment of apparent convalescence, when it is used in conjunction with 3 grains of quinidine, three times daily. The causes and prevention of certain serious complications of coronary occlusion have been described by the writer<sup>1</sup>, and include shock, ventricular fibrillation, myocardial failure, and massive pulmonary embolism. The mortality of acute occlusion with myocardial infarction might well be favorably influenced by the early recognition of actual infarction and the institution of adequate protective therapy without delay.

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#### CIGARET ASH SPILLED ON FOOD

In answer to the question of "How harmful is cigaret tobacco ash, for example, when it is accidentally spilled on food and the food accidentally eaten?" *The Journal of the American Medical Association* for September 30 says:

"The ash of cigaret tobacco itself may contain traces of lead or arsenic, as well as carbon and mineral constituents, but in itself it is not harmful when ingested in small amounts. However, the incompletely burned cigaret tobacco behind the burning point may contain rather high concentrations of tobacco alkaloids, and so care should be taken to avoid contamination of food with material from the stump, behind the ash. Nicotine poisoning, with fatalities, has been reported from contamination of food with cigaret residues, but it is the unburned material, not the ash, which is here responsible."

## VITAMIN REQUIREMENTS IN INFANTS AND CHILDREN

J. R. VONACHEN, M.D.

PEORIA

Vitamin deficiency leads to ineffectiveness and ill health and serious diseases may follow. Many diseased conditions increase at the needs for certain vitamins. When the diet is limited for any reason, or when more vitamins are required than can be obtained from the diet, additional vitamins in medicinal form may be needed. From the position of a serious lack of essential elements in the diet of young children, this is likely to be one of the graver aspects of food rationing during these trying times.

Up to the present time, improper dietary habits, destructive effects of food processing, canning, etc., and individual dislikes for some of the vitamin-rich foods have accounted for the subclinical vitamin deficiency states which are found in a regrettably large proportion of American families, regardless of social and economic status.

Within recent years there have been many papers and publications on the requirements of the most prevalent vitamins, and authorities have differed as to the minimum and maximum amounts, so it will be the purpose of this paper to give only the practical side of this problem and to state, as far as my knowledge will allow, the clinical application of these requirements. As far as scientific references are concerned, any debatable question can be answered by referring to the many volumes which have recently been published concerning vitamins.

All infants, whether on the breast or artificially fed, between approximately the age of eight days and three years, should receive daily 25 to 50 milligrams of ascorbic acid dissolved in a teaspoonful of water and then added to the milk; or, 3 ounces of orange juice or 6 ounces of tomato juice. To prevent scurvy in infancy smaller amounts should be started and gradually increased as the baby will tolerate it. In addition, one teaspoonful of cod liver oil, or ten to twenty drops of an oil concentrate should be given to prevent rickets and tetany. Likewise, 1½ pints of breast or whole milk is necessary

to meet the calcium needs, and if for some reason this quantity cannot be taken, fifteen grains of calcium in the form of calcium gluconate, lactate or calcium chloride should be supplied. Supposedly, pellagra and beri-beri will not develop on it and carious teeth and celiac diseases are not as frequent. We also assume that allergic patients are benefited by it, however, in many instances there is an allergy to cod liver oil, in which event vitamin D should be supplied in the form of viosterol. Where active rickets or scurvy exist the above dosage should be doubled. I might add that most infants and children become accustomed to the taste of cod liver oil, especially if kept and served ice cold. It is not the "A" but the "D" content of cod liver oil that deteriorates if not kept cold, and we all know rancid cod liver oil may cause digestive disturbances. Irradiated or vitamin D, milk may prevent rickets, but nevertheless I feel more secure if during early infancy additional vitamins are added. Premature infants usually require at least double the ordinary dosage of the average requirements.

The most common major deficiencies encountered in infancy and childhood are vitamin A deficiency; rickets, tetany, scurvy, pellagra, beri-beri and hypoproteinememia.

Vitamin A is essential to the normal vitality of the epithelial cells, increases resistance to skin and other infections; promotes growth and mental development and aids in maintaining normal glandular functions. Hence if we observe a child with xerophthalmia or certain types of hyperkeratosis of the skin we suspect a vitamin A deficiency. The outgrowth of a mild A deficiency can be evidenced by poor appetite, mild diarrhea, retarded growth, lack of vigor, dry skin, dental caries and loss of weight. Most authorities now feel that children under one year require 1500 international units; from one to twelve years, 2000 to 2500 international units and for the adolescent 5000 to 6000 international units. Regarding its distribution in foods, butter, eggs and liver may contain both vitamin A and carotene. Other good sources are fish liver oils, green and yellow vegetables and fruits; such as carrots, sweet potatoes, apricots and green leafy vegetables. If a deficiency exists, doses exceeding 10,000 USP units may be necessary.

To supply this deficiency cod liver oil has the advantage of low cost — added food value and effectiveness, but if it is objectionable carotene can be used or capsules and concentrates of cod liver oil.

The vitamin B complex which we talk about includes thiamin chloride, nicotinic acid, riboflavin, B<sub>3</sub>, B<sub>4</sub>, B<sub>5</sub>, B<sub>6</sub> and the filtrate factor called pantothenic acid.

Thiamin chloride or B<sub>1</sub> deficiency in children causes digestive disturbances, constipation, poor appetite, weakness, nervousness and retarded growth. If this deficiency is evident we may have polyneuritis, beri-beri, weight loss, muscular atrophy and susceptibility to intestinal infections. Regarding the requirements, children under one year should receive .4 milligram; from one to twelve years .6 to 1.2 milligrams and the adolescent approximately 1.4 milligrams.

The daily needs for vitamin B<sub>1</sub> in children are felt to be about 5 international units per pound of body weight. One milligram contains three hundred international units. One dram of dried brewer's yeast contains two hundred international units. One teaspoonful of wheat germ contains forty-eight international units. One-half teaspoonful of brewer's yeast concentrate added daily to an infant's diet usually meets the demand. As far as this Vitamin is concerned, its distribution in foods for children is best met by whole grains, liver, muscles of animals, eggs, enriched white bread and flour, wheat and many vegetables.

So-called beri-beri in itself is rare and is due to a deficiency of thiamin chloride, but we recognize now the pale, weak and perhaps oedematous infant or child who may have tachycardia, skin rashes, loss of reflexes and multiple pains in the extremities. Stasis in colon likewise is present. Prolonged fluid administration may sometimes cause this deficiency hence thiamin should be given to all infants and children who are on an extended liquid diet.

Prognosis is good if treated. Daily needs for children are 1-2 mg. of thiamin chloride (300-600 international units of vitamin B<sub>1</sub>). Such foods as brewer's yeast, milk, wheat germ, rolled oats and dark farina contain B<sub>1</sub> in largest amounts.

Pure thiamin may be given intravenously, subcutaneously or intramuscularly if there is difficulty in intake or absorption.

Nicotinic acid or niacin, or nicotinamid, is the antipellagric vitamin and is essential to general health and growth formation. In infants a mild deficiency of this vitamin causes digestive disturbances, lack of vigor and impaired growth. If the deficiency is evident we have dermatitis, stomatitis, weakness and pellagra. The daily requirements have caused some controversy, although under ordinary circumstances the average infant under one year requires four milligrams; between one and twelve years, six to twelve milligrams and adolescents, twelve to fourteen milligrams. Its distribution in foods are most of the leafy green vegetables, wheat germ, kidneys, liver, yeast and enriched breads and flour.

We, as physicians, hear of pellagra and think of it as a distinct rarity in the north, more common in the south. We however, do see in children cases in which there are symptoms of alternating diarrhea and constipation, upset gastro-intestinal tracts without a cause, distinct loss of appetite, mental lassitude, glossitis (smooth-red tongue) and usually associated with this syndrom some form of dermatitis (scaling exfoliation or desquamation of the skin). These symptoms, we believe are due to a deficiency of principally nicotinic acid associated with other B complex deficiencies.

The only practical laboratory test at present is the finding of porphyrin in the urine, but this is not always present.

The prognosis is good if treated. Put these patients on a well balanced diet, high in proteins. Because of the probable multiple nature of the deficiency and the need to provide more than nicotinic acid alone, yeast or concentrates of yeast are best given, 1-2 teaspoonfuls of brewers yeast daily. In terms of nicotinic acid, 25-50 mg. daily.

Nicotinic acid can be autoclaved and given in .5% Sol. in normal saline — .3 cc per kilo body weight for 24 hours.

Wheat germ cereals make a good adjunct to the diet.

More recently seen quite often, is a riboflavin-deficiency manifested by inflammation of lips, fissures at corners of mouth and seborrheic lesions about the nose. Likewise present is a

characteristic glossitis, Cheilosis, vascularizing keratitis, photophobia and celiac disease. The daily requirements for children up to one year is .6 milligram; from one to twelve years, .9 of a milligram to 1.8 milligrams and for adolescents 1.8 to 2 milligrams. The suggested therapeutic dosage is from 3 to 15 milligrams daily. Here riboflavin may be given. Its distribution in foods is principally milk, eggs, cheese, liver, yeast, leafy green vegetables, peas, lima beans and the muscles of many animals. Yeast concentrates are the best source — also vitamin B complex.

Briefly, pyridoxine or vitamin B<sub>6</sub>, will simply be mentioned to state that today the daily requirements are undetermined and its significance in human nutrition has not been established as yet. Its distribution in foods is principally manifested in rice, bran, wheat germ, crude cane molasses, liver and yeast.

Ascorbic acid or vitamin C. Scurvy, hemorrhages, swollen joints, gums, loose teeth and muscle atrophy are evident if this deficiency exists. A mild deficiency causes defective teeth, tender joints, restlessness, weakness, ecchymosis and digestive disturbances. The daily needs for infants under one year are 30 to 50 milligrams; from one to twelve years 35 to 75 milligrams and for adolescents 80 to 100 milligrams. Its principal distribution in foods is oranges, tomatoes and to a lesser degree lemons, limes, grapefruit, raw cabbage, fresh string beans, green peppers and various other fresh fruits and vegetables. When a therapeutic dosage is required for infants and children, 100 to 200 milligrams daily should be given. I might mention that ascorbic acid tablets in comparable doses at the present time is probably cheaper than orange or tomato juice. Milk cannot be depended upon to supply human needs for vitamin C. Because of the universal use of orange juice at present, scurvy is on the decline.

Remember signs of scurvy are not the first signs of vitamin C deficiency, so ascorbic acid or citrus fruit juices should be given to all individuals to produce optimal health and growth.

Vitamin D, the anti-ricketic vitamin, is essential to bone and linear growth, dental development and glandular balance and the regulation of phosphorous and calcium metabolism. Large

doses such as 150,000 units may be toxic and produce skin lesions. A milk deficiency in infants and children causes poor assimilation and deposition of phosphorous and calcium and causes susceptibility to dental caries, restlessness and lack of vigor. As an evidence that the deficiency exists we have rickets, tetany, soft bones, enlarged epiphysis, retarded growth and low blood phosphorous and sometimes low blood calcium. The daily needs for infants under one year are 400 to 1000 international units. The report by the technical commission on nutrition is rather interesting and I quote: "(a) For full term infants and children up to five years old, although a daily intake of 500 international units would probably protect the full term infant and young children, a daily allowance of 700 international units would give a wider margin of safety. For simplicity in administering, (a) vitamized oils should be so reinforced with irradiated ergosterol that one fluid dram would contain the full allowance of 700 international units as well as the 3500 international units of vitamin A now provided for in each fluid dram. (b) For premature infants under 5½ pounds at birth, the allowance should be double that mentioned for the average normal infant. (c) School children. Information regarding the vitamin D needs of school children are meager, although there is much to suggest that vitamin D deficiency is one factor in the cause of dental caries in school children. Taking also into consideration the small amount of fat, fish, eggs and meat fats that are available, it is recommended that a supplement of 35 international units of vitamin D per day be allowed for school children. This could be issued with school milk or through the medium of school dinners. It might be recommended to the physician that the mother be instructed to start cod liver oil or its substitutes gradually, beginning with a few drops during the first month and taking a fortnight to work up to the first dosage of one teaspoonful. Inform her that where the infant during the summer days is out of doors mornings and afternoons the vitamin D supplement can be reduced; also warn all mothers with premature infants that vitamin D should be given throughout the summer and winter; that these babies should be under regular medical supervision and that their allowance must be in-

creased to two teaspoonfuls daily or its equivalent."

You are all familiar with the symptoms and signs of rickets or vitamin D deficiency. Rickets should be cured rapidly. Not less than 1200 units daily should be tried and 10,000 to 50,000 units may be required. Concentrated and 2530 Angstrom units of ultra-violet light is fortified fish oils are equal to viosterol in oil and are also rich in A.

The recent vitamin D milk, bread and breakfast foods are available but despite claims, are usually so low that they should not be depended upon for treatment and should be considered critically for protection. Gradual exposure to curative.

When confronted with an irritable child who may be having periodic convulsions or attacks of crowing inspiration, always think of infantile tetany. Further investigation will probably reveal carpopedal spasm, hypertonia, emotional instability and twitchings. Laboratory tests usually reveal a low serum calcium and a low phosphorous plasma.

The prognosis is good if treatment is early and adequate. Best results are obtained if calcium therapy is started at once and it is advisable not to give cod liver oil for a week, but after this, continue with it regularly. Give 15 gr. of calcium lactate, gluconate or chloride every 4 hours for the first 3 days and then twice daily for 4 weeks. If convulsions are frequent, give 10 cc. of 10% calcium gluconate intramuscularly or intravenously. Parathyroid extract is only indicated in hypoparathyroid tetany which is fairly rare in infants and young children.

Vitamin K deficiency is manifest by prolonged clotting time, hemorrhagic diathesis in newborn, and in certain types of hepatic and biliary diseases; also by prolonged thrombin deficiency. The therapeutic dosage has been estimated at from 1 to 2 milligrams. The definite daily requirements have not as yet been determined. Its distribution in foods is principally in alfalfa, kale, spinach, cabbage, tomatoes, soy bean and other vegetable oils. It definitely controls bleeding in hemorrhagic diseases of the newborn due to hypothrombinemia and in obstructive jaundice.

For practical purposes vitamin K is best given for treatment in the aqueous extract by hypo in unit doses of 2000 units.

For prevention it can be given to the expectant mother in oral form in 1 mg. doses.

Commercial preparations are Thyloquinone, Proklot, Kayquinone, Klotogen for oral use and Hykinone and Synkamin for parenteral use.

We might briefly mention vitamin E to state that it is said to promote growth of premature infants. It is apparently essential to male and female fertility. In children its daily needs are undetermined. Its distribution in foods is wheat germ oil, cotton seed oil, meat, eggs and green leafy vegetables. The suggestive dosage is 50 to 100 milligrams daily.

There are other postulated vitamins of which we do not have at present enough information on to make an essential part of this discussion.

From the standpoint of food I might conclude that milk, eggs, butter, fresh vegetables, fruits, whole cereals and meat or fish are called protective foods because they are rich in the elements essential to health. Therefore, for infants or children, 1½ pints to one quart of milk per day and two or more servings of vegetables besides potato. In older children one raw vegetable, oftentimes a green and yellow vegetable; one or more servings daily of fruit, including one citrus fruit. Daily also, a serving of meat or fish, and in the older children oftentimes cheese, cereal or bread, most of it as whole grain or enriched, and from one to two tablespoonfuls of butter daily will supply most of the essential needs.

In closing I would like to quote Dr. Boyd of Iowa University.

"The dietary regime advised is simple. At first glance parents will assure the physician that their child is eating essentially what he has listed. Many of the ingredients however are used in amounts which are insufficient to meet the purpose for which they are included. This is true in terms of the level of consumption of milk, vegetables and fruits, fish liver oil and sometimes meat. As a consequence the average child's diet is deficient in the content of vitamins D, C and B complex and in calcium, protein and iron."

The correction of poor diets does not lie in the use of vitamin or mineral concentrates alone.

Food needs are best met through the use of foods rather than through pharmaceutical products.

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#### DISCUSSION

Dr. E. T. McEnery, Chicago: Dr. Vonachen's paper certainly gives us a great deal of food for thought. Today the story of vitamins is carried extensively on the radio; they are always talking about some vitamins needed here and there. I think too frequently the physician, in advising vitamins or diets, is not specific enough about what product to use. Many times patients buy almost anything put before them and think they are getting adequate vitamins. I think we ought to use those put out by established pharmaceutical houses. It is rather interesting to see the various sales and prices. Codliver oil, for example, at one store is cheaper, at another store is higher. I wonder how many units there are in the sale product. I imagine it might contain a lot of non-essential oil and very little vitamin D. So I think we should specify that it be from a good house.

In the use of codliver oil, especially in small infants, I wonder if we give any consideration to allergic manifestations later on. I think the use of fish oil should not be advised in families in which there is an allergic history.

Another thing I would like to mention is sub-clinical states. I think we are going to be a little more conscious of this in coming years. We are hearing of dry skin, folliculitis, glossy tongue, etc. Another condition seen in private practice more than hospital practice is vitamin C deficiency or scurvy — not cases with hemorrhage of the gums, but children who are fussy and irritable, who cry when they are picked up. When you examine the bones you may find it has scurvy and subperiosteal hemorrhages. I think one thing we should use more is ascorbic acid tablets early. I feel orange juice has been frequently a cause of upsets in babies, and sometimes if you put them on ascorbutic tablets the so-called colic will disappear. Much of this is due to inability to handle orange juice.

The use of vitamin B is something that is interesting in some children. In children with poor appetites, what kind of vitamin B are you going to give them? There are so many on the market that we could discuss them all afternoon. I think many children do need vitamin B during infancy and during pre-school years, in large doses; children who do not sleep, have poor appetites, due to vitamin B deficiency.

Cutting down codliver oil in the summer might be all right if we had wide open spaces, but here in Chicago where are they? It is seldom that children are in the direct rays of the sun. I think the cutting down of the vitamin content in codliver oil in the summer should not be done in all cases; it is needed just as much in the summer as in the winter.

Dr. Robert Cummings, Chicago: There seems to be a great difference of opinion as to the dosage of codliver oil. I sometimes see a baby who has been under

the care of a good pediatrician in another city; the dose of codliver oil that baby is getting is half of what I prescribe. I sometimes think I am giving too much, and yet the detail men recommend a dose which seems to me too small.

I was interested in what Dr. McEnery said about ascorbic acid tablets. I have had two babies on ascorbic acid because of allergy and recently the mothers told me they were still continuing it because it was so simple.

Dr. John R. Vonachen, Peoria (closing): First of all, in regard to the question of eye conditions from vitamin A deficiency; the few cases I have seen occurred fifteen or twenty years ago, in the days when condensed milk was rather generally used and other foods were not started until later in the first year of life. I think definitely these cases were due to vitamin A deficiency, due to lack of vitamins in the so-called condensed milk, and failure to start other feedings early.

With reference to sunshine, I think Dr. McEnery has brought up a good point. It is true probably that there is more sunshine where we are in the summer. I will say that I have made it a practice to given written instructions with reference to sunbaths, and I find we have encouraged sunbaths so much that the children get sunbaths as they would not ordinarily.

I can only answer the question about orange juice by saying that I sat in at several round table discussions where that question was brought up. It was the opinion of Drake at Toronto and several others, that orange juice left standing loses a great deal of its vitamin C content. We probably should be more specific in stressing fresh orange juice rather than what has been standing in the refrigerator. The question of canned orange and grapefruit juice was also brought up. While there were no specific figures, the assumption is that canning does destroy 30 to 35 per cent of the efficiency of vitamin C, although this is often denied by some chemists. Supposedly it is not as good as fresh fruit juice.

I think we have all seen a lot of infant colic started about the time we give orange juice. I am in favor of using ascorbic acid tablets instead. We have had little difficulty in obtaining them and the present price of oranges is almost prohibitive for some people.

What Dr. Cummings says is true. The recommended dosage authorized in the commercial preparations is usually too low. For preventive purposes at least 10 to 20 drops should be given. Small infants we start on a smaller dosage to see if it is tolerated, but the average infant, for preventive purposes, should receive no less than 10 and anywhere up to 20 drops. For treatment it is different. I believe the mistake in the past, when we find a deficiency, has been to order a preventive dose rather than a treatment dose. I think in some cases we must use much larger doses. In the utilization of vitamins, in many instances of gastrointestinal conditions the absorption is poor, and in these cases we should resort to intramuscular or subcutaneous

preparations. I might add that we have had some cases of anemia where we have not been able to obtain results with any iron preparation and have obtained definite results with intramuscular injections of vitamin B complex and liver extract. The results were probably due to the vitamin B complex, and maybe the liver had nothing to do with it.

## THE RECOGNITION OF ATYPICAL PNEUMONIA\*

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Atypical pneumonia, variously designated as virus pneumonia or pneumonitis; interstitial pneumonia; non-bacterial pneumonia, and by a number of other names, cannot be considered a disease entity but merely the pulmonary manifestation of a more general respiratory tract infection. The term refers particularly to pneumonias which are virus or presumably virus in origin. The pneumonic phase of influenza A or B, Ornithosis, and certain experimental virus infections, represents those of known etiology, whereas the one of which we speak is of unknown etiology. These infections may occur either sporadically or, as did ours, in epidemic form.

*The Pathology.*—In order better to understand the significance of the term and to appreciate the reason for some of the physical and x-ray findings, a brief description of the pathology as we found it, is necessary. Figure 1.

Microscopically, the pattern is striking and very unlike the pathology seen in the bacterial types of pneumonia. The interalveolar septa stand out in relief due to infiltration by mononuclear cells, histocytes, plasma cells in great numbers, a few neutrophils and red cells. Lymphangectasia and edema likewise are prominent features. The alveolar spaces are characteristically free of exudate. However, when it does occur it consists of serum, sometimes of gelatinous-like exudate and some mononuclear elements. The endothelial lining, of the alveoli, except for a swelling of the endothelial cells, may be ruptured, but for the most part is intact.

The bronchial walls are markedly thickened by the same characteristic infiltrate. The muscular layers are shredded and disrupted and the mucosa fragmented and necrotic. The lumina not infrequently contain plugs of fibrin and many mononuclear cells. About the bronchi are seen areas of atelectatic alveoli, alveoli containing an exudate and an infiltration of the supporting tissue by mononuclear elements. This gives the appearance of a "collar" surrounding the bronchi.

When secondary bacterial invaders implant themselves upon this process, the alveolar exudate consists of fibrin, cellular detritus serum and myriads of polymorphonuclear leucocytes — the characteristic exudate of a so-called lobular or lobar pneumonia bacterial in origin.

Some investigators, notably Francis, raise the question whether the condition is not merely a bronchitis primarily and the pneumonia nothing more than a physiological accident, resulting from the gravitation of the upper respiratory tract infection into the lung.

There is much evidence to support this view. In one of our patients who died with interstitial pneumonia, in another who died having measles, and still another who died in the course of scarlet fever, we found the interalveolar septa infiltrated with the characteristic mononuclear elements. In all there were areas of atelectasis, bronchial plugs, minute hemorrhagic areas, and areas of congestion. Similar pathological changes were observed by us in the epidemic of so-called streptococcus pneumonia and empyema at Camp Dodge in 1917-1918, as well as in the pathological material submitted to us by the Army Medical Museum. In reality the atelectasis and congestion present may explain many of the physical and x-ray findings, without assuming that the process is an outspoken exudative type of pneumonia.

*Source of our Material.* — In the period from December 1, 1942 to June 1, 1943, approximately six thousand cases of epidemic respiratory tract infection were admitted to the Station Hospital, Fort Custer, Michigan. All presented the symptoms of upper respiratory tract infection and were variously diagnosed as nasopharyngitis, laryngitis, laryngo-tracheitis, and bronchitis. It was early observed that many of these patients had an atypical pneumonia, so a study

\*Represents a consolidation of the papers presented before the General Assembly and the Roentgenological Section of the Illinois State Medical Society at its annual meeting held in Chicago, May 18, 1943.

of some five hundred patients, routinely admitted, was instituted in order to determine its relative incidence. In this study sixty percent were found to have an upper respiratory tract infection only, fifteen percent had a bronchitis, and twenty-five percent had atypical pneumonia concurred in by the roentgenogram.

*Criteria Upon Which The Diagnosis Is Based.*

— Early recognizing the necessity of some norm to which the syndrome would have to conform before a diagnosis of atypical pneumonia could be made, it was found that the disease had certain general characteristics which could be used. These are described under the headings of onset, physical and x-ray findings, course, white cell count, sputa, and response to sulphonamides.

The necessity for establishing these criteria, arose in part from the difficulty in correlating the physical and x-ray findings; in part from the tendency to confound the disease process with the bacterial pneumonias; in part from the variability of its course; but in most part because of the frequency with which secondary bacterial invaders modified or changed the condition — thus taking it out of the class of virus pneumonias.

*General Characteristics Of The Syndrome.* —

**ONSET:** The onset is variable. In the early part of our epidemic it was generally abrupt, with symptoms "grippe" like in character, following exposure on the drill field. In many patients, on the other hand, a cough, sometimes of several weeks duration, a sore throat, a recurring cold, a low grade upper respiratory tract infection, or vaccination against typhoid fever or smallpox, ushered in the disease. Later in the epidemic the onset was less abrupt and the symptoms milder.

Headache, generally supra-orbital, malaise, chilliness, or a succession of mild chills, cough accompanied by tightness in the chest and sometimes muscular aching, were the presenting symptoms. A few patients had a rash, macular, maculo-papular, or "rose-spot." The lesions were small, isolated, few in number and disappeared within twenty-four hours.

This type of onset is common to all phases of the disease, regardless of the course it may take and regardless of what part of the pulmonary tract is predominantly involved.

*Physical And X-ray Findings:* — The reason for describing the physical and x-ray findings under a common heading, arises from the conviction that an opinion can be arrived at only by a correlation of the two. "X-ray pneumonia" is a term often applied to the disease, indicating the degree of dependence placed upon the x-ray. On the other hand, physical examination may disclose extensive findings not confirmed by the x-ray studies.

In order better to understand this correlation we have divided the pulmonary manifestations of this syndrome into four phases, namely, the bronchitic, peribronchitic, alveolar, and broncho-alveolar, thus designating the parts of the pulmonary tract predominantly affected. While there exists an anatomical, pathological, clinical and roentgenological, basis for this division, it must be borne in mind that these phases, seldom exist, independently. Generally, two or more may co-exist or merge one with the other or they may follow one upon the other. In a word, all parts of the pulmonary tract may be involved simultaneously or successively.

As introductory remarks to a description of these four phases, it is well to call attention to the observations that the bronchitic phase exists almost solely as a clinical entity; that the peribronchitic phase is identified as such chiefly by the roentgenogram, as is the alveolar phase, while the recognition of the presence of the broncho-alveolar phase depends upon both physical and x-ray examination.

*Bronchitic Phase:* The disease in this phase on physical examination differs little if at all from the type of bronchitis commonly seen and so appropriately described in Osler's text-book of medicine. It is characterized by loud, squeaking, sibilant, sonorous, piping rales and rhonchi heard throughout the chest. In the severer forms and in those running a prolonged course, cyanosis and dyspnoea are accompanying features. In these severer forms, marked by remissions and exacerbations, bouts of chilliness, fever and sweats, we believe, that in reality, the process is an interstitial pneumonia. The suppression of the normal vesicular murmur and the prolongation of the expiratory phase of respiration, so often seen, can be explained by the rigidity of the alveolar septa, and the lessened contractility of the alveoli. Figure 1. The fixity of the alveo-

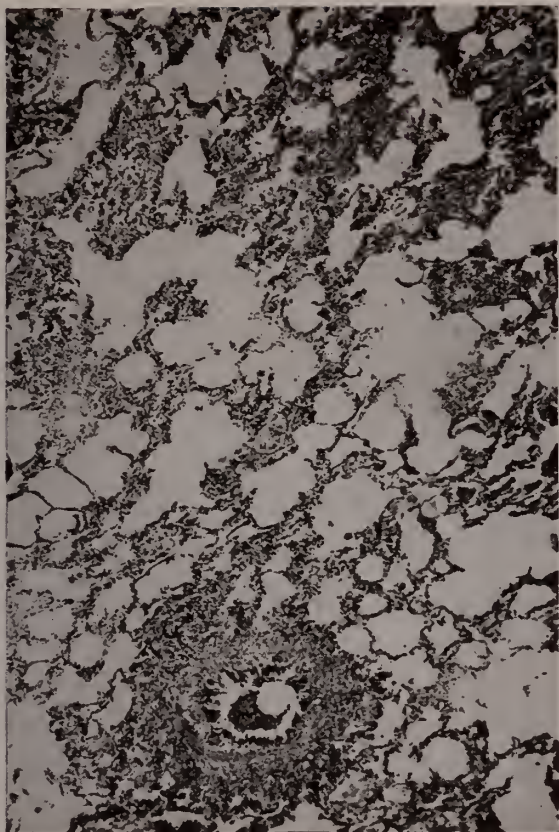


Figure 1. Photomicrograph x 80. Interstitial pneumonia showing infiltration of interalveolar septa, bronchial walls, and peribronchial structures; also areas of atelectasis.

lar walls or the presence of the gelatinous exudate, conceivably results in a lack of gaseous exchange which might well account for the cyanosis and dyspnoea.

In this phase the x-ray is of little service, showing at most an increase in size and density of the hila and an increase in pulmonary markings. Figure 2.

*Peribronchitic Phase:* Here pathologically we find the characteristic peribronchitic "collar" as described in Figure 1. On x-ray examination these thickened bronchi stand out prominently as shafts radiating from the hila to the diaphragm and may be described as increased trunkal marking. Figure 3.

Here the disease is confined more or less to the lung bases. On physical examination there is generally little more than some slight impaired resonance and a distinct blowing quality to the breath sounds, marked by a prolongation of the expiratory phase.



Figure 2. Bronchitic phase showing increase in size and density of both hila and prominence of pulmonary markings.



Figure 3. Peribronchitic phase showing increased prominence of the trunkal markings and evidences of peribronchitic infiltration in the left base.



Figure 4. Alveolar phase showing a confluency of multiple, small, soft lesions in the right cardiophrenic region.

*Alveolar Phase:* This phase on the x-ray film is represented as multiple, small, irregular, soft, slightly opaque shadows, intimately connected with the bronchi. As such they are most often found at the bases. Figure 4. When they occur in parts of the lung other than the bases they are more representative of a bronchopneumonia as the term is generally used. Figure 6. This phase may likewise be represented on the x-ray film by a well-circumscribed or even ill-defined shadow having a ground glass appearance, occupying an area no larger than a quarter, or large enough to involve the greater part of a lobe. Figure 5.

Generally, there is but one such shadow, not infrequently several may coexist. Often it is of a migratory nature, clearing in one area, reappearing in another. As a rule it arises from the hilum but may seem to arise in the mid-lung field unconnected with the hilum. Occasionally it extends towards or to the periphery delimited by the pleurae, making it difficult to distinguish it from bacterial lobar pneumonia.

There are some reasons for believing that in either type, it does not represent pneumonia at all but an area or areas of atelectasis or congestion. Figure 1.



Figure 5. Alveolar phase showing a soft, fan-shaped, ill-defined lesion in upper right lobe.

It is this phase that so often is spoken of as "x-ray" pneumonia because physical findings are either not present or when present are out of line with the x-ray findings. Impaired resonance, suppressed breath sounds, absence of the vesicular murmur, a gentle blowing quality to the whispered voice with scarcely a rale, might be said to represent the extent of the physical findings.

*Broncho-alveolar Phase:* While, as has been shown, the peribronchitic or the alveolar phases may exist independent one of the other, frequently they coexist. Conceivably, it would be rare not to have some alveolar involvement in the peribronchitic phase, although in many cases this cannot be detected either on physical or x-ray examination.

In the broncho-alveolar phase which represents a peribronchial infiltration and an alveolar exudation or congestion or atelectasis, the physical and x-ray findings differ in no wise from the findings of the classical bronchopneumonia, bacterial in origin. In fact, neither by physical signs nor by x-ray can the broncho-alveolar phase of atypical pneumonia be differentiated from bacterial broncho-pneumonia. In both there are patchy areas of dullness, vesiculo-bronchial breathing and fine alveolar and bronchial rales. In both the x-ray discloses a diffuse mottling. Figure 6. In those virus in origin, however, the lesion is more apt to be confined to the bases,



Figure 6. Broncho-alveolar phase showing diffuse mottling in lower left and upper right lobes. Trunkal markings of increased density in right cardiophrenic area.

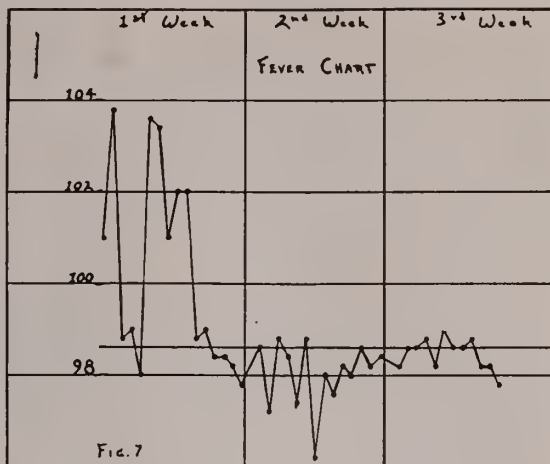
whereas in the bacterial type, the lesion is more likely to be scattered throughout both lungs. The points in differentiation are the presence of a decided leucocytosis, pathogenic bacteria in the sputa and response to the sulphonamides in the case of those bacterial in origin.

*Course:* The course of the disease depends very much upon the phase of the disease and the extent of the pulmonary involvement:

In the bronchitic phase, the disease generally terminates abruptly within a few days or at most a few weeks. On the other hand, we have observed patients for periods as long as two, three, or four months — in one case six months — in whom the physical findings were only those of a bronchitis. Remissions and exacerbations are not uncommon.

In the peribronchitic phase, in which the disease is more or less confined to the bases, the course again is generally short. Exacerbations in this phase are uncommon.

In the alveolar phase, the course is extremely variable. In almost all instances, in which it is represented by an isolated parenchymal lesion the process terminates abruptly. When it assumes a migratory character, disappearing in one area and reappearing in another, the process may continue for many weeks but seldom

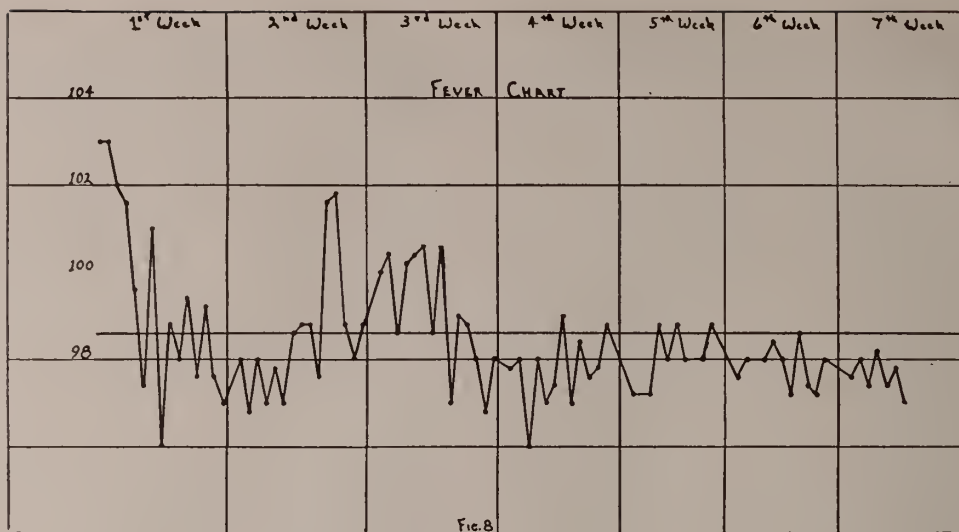


lasts more than a month. Bouts of chilliness and fever, mark the appearance of a new lesion. Just as frequently, however, only the x-ray discloses its presence.

In the broncho-alveolar phase, if the lesions are localized to the bases, the course generally is short lasting but a few days or weeks. When the lesions are more extensive, reaching out into the lung fields, the course is likely to be characterized by exacerbations, extensions, and remissions, and may run through many weeks. Bouts of chilliness, fever, and sweating may mark these episodes.

*Fever:* There is nothing characteristic about the fever. In cases of short duration it may be high in the beginning, fall to normal within three or four days never to rise again. Figure 7. In cases of long duration, it may take on the same general character, or may be intermittent. Figure 8. Nor does the fever bear much if any relation to the extent of the involvement. Figures 5, 7. Frequently evidences of migration, recurrence, or extension of the lesion on physical or x-ray examination are not reflected in the temperature curve. On the other hand, the temperature may rise without physical or roentgenological signs to account for same.

*Sputa:* Cough in the early stage of the infection is non-productive. When sputa appear they, at first are mucoid and whitish. Later they are expectorated as solid, gelatinous, grayish plaques, streaked with bright red blood and are free of pathogenic bacteria. This is especially true in the alveolar phase. Towards the end of the disease in the bronchitic phase they are frequently abundant, whitish, mucoid and frothy.



Complication of the process by bacterial pathogens, particularly streptococci, shows itself by the presence of bacterial pathogens in the sputa.

*Leucocytes:* At the onset the white count is normal, slightly depressed, or but slightly elevated and generally remains so throughout the course of the disease. When the disease enters the second or third week, the white count frequently rises to as high as fourteen thousand, to fall to normal within a few days. When secondary bacterial invaders implant themselves, a decided and persistent leucocytosis of fourteen, sixteen, eighteen thousand, occurs.

*Response To The Sulphonamides:* It can be said, with but little hesitancy that typical atypical pneumonia never responds to the sulphonamides. However, when the disease process becomes complicated by the presence of secondary bacterial pathogens as evidenced by their presence in the sputa and by a leucocytosis, the use of the sulphonamides results in an abatement of the cough, disappearance of organisms from the sputa, and a fall in the leucocytes.

#### SUMMARY AND CONCLUSIONS

Of six thousand patients entering the Station Hospital, Fort Custer, Michigan, with acute epidemic respiratory tract infection, twenty-five percent presented evidences of atypical pneumonia. The characteristic pathology found in one patient who died with the disease is described. The condition should not be considered

a disease entity but the pulmonary manifestation of a syndrome involving the entire respiratory tract. Certain postulates are advanced, the fulfillment of which are considered necessary for a diagnosis. The general characteristics of the syndrome are described and the physical, x-ray and pathological findings are correlated. As a result of this correlation it has been found that the syndrome may be divided naturally into four phases, namely, bronchitic, peribronchitic, alveolar, and broncho-alveolar. While any one of these phases may exist independently of the other, frequently two or more coexist or one merges into the other. Thus it may be seen, all parts of the pulmonary tract may be involved simultaneously or successively.

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Penicillin appears to have no value in the treatment of acute rheumatic fever, two separate groups of investigators declare in separate reports in *The Journal of the American Medical Association* for September 30.

## RESULTS OF SURGICAL TREATMENT OF ACUTE CONGESTIVE GLAUCOMA

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Acute congestive glaucoma, refractory to medical therapy and consequently requiring surgical intervention does not occur commonly enough to enable the individual ophthalmologist to compare the results of different surgical methods. Statistical surveys of results obtained by different surgeons with different methods are therefore of very definite value, for which reason the following survey of 45 cases diagnosed as acute congestive glaucoma, operated and followed at the Illinois Eye & Ear Infirmary is presented herewith.

Present concepts concerning the pathogenesis of acute congestive glaucoma are largely based on recent gonioscopic studies<sup>1</sup> which have confirmed the older views founded on clinical and pathologic evidence. The outstanding factor in the *classical form of acute congestive glaucoma* appears to be obstruction of the angle either by mere contact between iris and anterior angle wall or by true peripheral anterior synechiae. The latter are the result of the present or previous glaucomatous episodes which may or may not have been associated with the signs of congestion. Narrowness of the entrance to the angle is a necessary requisite for the establishment of the foregoing mechanism. This narrowness is usually but not always a part of overall shallowness of the anterior chamber. From the available evidence it appears reasonably certain that this shallowness is pre-existent to the first rise of intraocular pressure, has not been brought on by the latter, and is probably the result of developmental factors.<sup>2,3</sup> Prior to the establishment of contact or synechiae between iris and anterior angle wall the channels of outflow from the anterior chamber function normally in these cases. The contact is brought on by angle-crowding factors such as mydriasis, accommodation, emotion. During a severe attack

the shallowness of the anterior chamber may become still more pronounced through active or passive congestion of the entire uvea. The mechanism described in the foregoing is well expressed in the name, "narrow-angle glaucoma" (O. Barkan).<sup>4</sup> The classical acute congestive glaucoma thus represents a dramatically acute form of narrow-angle glaucoma (hereafter designated as type A).

The surgical procedure intended to relieve it should aim at

1. freeing a portion of the angle by breaking the contact between iris and anterior angle wall,
2. rendering recurrences of such contact innocuous by creating a wide passage to the angle which will function even during the action of angle-crowding factors, and
3. providing, in the cases of extensive anatomical peripheral anterior synechiae, a new outlet for the intraocular fluid.

The first two aims are accomplished by excising a piece of iris. Since the aim is freeing of the angle it is only natural that the surgeon attempt to include in the iridectomy as large a piece of the root of the iris as feasible. The third aim cannot be accomplished by an iridectomy, and a filtering operation has to be resorted to. Thus it would seem that the important point in making the decision between iridectomy on the one hand and a filtering operation on the other is the presence or rather the extent of irreparable peripheral anterior synechiae. By "irreparable" is meant an organic union between iris and corneo-scleral trabeculum which would make normal functioning of the latter impossible even if the adhesion could be broken surgically.

Acute congestive glaucomatous phases also occur in secondary glaucomas and in so-called primary glaucomas in which the channels of outflow functioned insufficiently before peripheral anterior synechiae formed (hereafter designated as type B). Thus the problem in deciding upon the most suitable form of surgical treatment for a given case of acute congestive glaucoma, would then seem to be as follows:

1. the distinction between the classical narrow-angle type (type A) and glaucomas of type B and secondary glaucomas, and

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2. the recognition, within the group A, of extensive irreparable peripheral anterior synechiae.

The distinction between glaucoma of type A and secondary glaucoma can usually be made if the entire clinical picture and the patient's history are taken into consideration. The recognition of extensive irreparable peripheral anterior synechiae still constitutes a difficult problem. Even the gonioscope has failed to give a clear idea of the extent of the irreparable synechiae during the acute congestive phase. If the disc shows a definitely glaucomatous excavation, it is fairly certain that the glaucoma has been of long standing which would suggest the presence of extensive peripheral anterior synechiae if we are dealing with the glaucoma of type A. The most valuable clue is unfortunately an entirely subjective one, namely the history. If the patient is certain that in the eye in question he has had no attacks whatsoever of slight or marked blurring of vision associated with haloes and colored rings around lights and if the present attack has not lasted more than one or two days, then it is reasonably certain that no extensive peripheral anterior synechiae are present. If the patient, however, reports having had repeated mild attacks terminating spontaneously, there is a definite possibility of extensive synechiae. If he is certain that his vision was perfectly clear during the intervals those synechiae could not have been too extensive to interfere seriously with the maintenance of normal intraocular pressure. Unfortunately, in many of the patients seen at the Illinois Eye and Ear Infirmary the history was so vague that the surgeon could not attach any significance to it. In summary, the accurate estimation of the extent of the peripheral anterior synechiae, if the patient is first seen during an acute congestive attack not responding to conservative therapy, is very difficult and many operations have to be undertaken without an exact knowledge of the actual condition of the chamber angle.

*The Iridectomies:* — Of the total number of 13 iridectomies 7 or 38% were successful in the sense that the intraocular pressure became reduced to below 30 mm. (Schioetz) for the entire postoperative observation period. In one case the intraocular pressure was reduced to below 35 mm. As had already been stated by

Sugar<sup>5</sup>, success of the operation seemed to be characteristically coupled with the gonioscopic picture of a partially open angle. The smallest sector of the angle that was compatible with normal intraocular pressure was 70-90°. A surgical coloboma of 45-60° width alone, without any additional patent sector in other parts of the angle, was not sufficient to keep the intraocular pressure within normal bounds.

Among the seven successfully iridectomized cases there were three with a definite history of a duration of the attack of just a few days. Only one case showed a definitely, another a possibly glaucomatous excavation. Of the remaining five cases four had normal discs and visual fields.

In the group of unsuccessfully iridectomized eyes the gonioscopic data are meagre, chiefly because — on account of persistent corneal edema and severe irritation of the eye gonioscopy was or could not be done. In the cases on whom gonioscopic examinations were made, the open sector of the angle measured less than 70°. In two unsuccessfully iridectomized cases, one pillar of the coloboma was intentionally left in the wound. These small incarcerations failed to produce permanent gaps of the incision or blebs and the gonioscopic results were broad basal colobomata with small iris inclusions. In addition to being unsuccessful iridectomies, these two cases could also be considered as unsuccessful small iridencleises. In two cases the heretofore clear lens became opaque within a few days following the operation, either as the result of a direct injury to the lens or due to rupture of lens capsule during the decompression (Meller<sup>6</sup>).

In seven of the 11 unsuccessfully iridectomized eyes the glaucoma seemed to be far advanced as judged by pathological field or disc changes. The one case which took a definitely malignant course was a very far advanced glaucoma.

While these data are not as complete as they undoubtedly will be made in future series in which the method of clearing the cornea for gonioscopy will find general application, one conclusion seems justified at this time: the sector of the angle found to be open postoperatively was greater in the successfully than in the unsuccessfully iridectomized eyes. Besides,

among the successfully iridectomized glaucomas there is a preponderance of glaucomas of short duration, whereas in the group of unsuccessfully iridectomized patients the far advanced glaucomas dominate. Since in the glaucoma of type A long duration usually means extensive peripheral anterior synechiae we believe that the frequent failure of the iridectomy in cases of this type is largely due to the presence of extensive irreparable synechiae. Iridectomy is thus suited only for the early stages of acute congestive glaucoma of type A (compare Sugar<sup>7</sup>).

*The Iris Incarcerations:* — The results of the iris inclusion operations were very gratifying, return of the intraocular pressure to normal having been obtained in 10 of the 13 operations for the entire period of postoperative observation which averaged two and two-thirds years. The visual acuity improved except in those cases in which the glaucoma was far advanced. The average period of hospitalization was not longer than after the iridectomies. In most eyes the original state of congestion plus the postoperative reaction subsided completely within two weeks from the day of the operation.

Iris inclusion failed to control the tension in three cases. In one case the cause of the failure was probably the rapid swelling of the lens which was the result of an injury inflicted during a paracentesis prior to the iridencleisis. No obvious reason could be invoked for the other two failures. In one of these cases the operation probably has not been a complete failure since the patient has retained fair central acuity with slight constriction of his peripheral field for two and one-half years. No late infection or any other complication has occurred in this series except one case of lens injury during the iridencleisis. The technique of the operation varied considerably. Some of the incisions were made by the scratch technique. In 9 of the 10 successful operations the clinical and gonioscopic picture of a filtering cicatrix was present.

*The Trephines:* — Again the results were gratifying. Ten out of 14 (71%) operations were unqualified successes. Success was usually coupled with the gonioscopic picture of a partially patent trephine hole with bleb formation in the overlying conjunctiva, the angle being largely or entirely closed. Some incarceration

of iris or ciliary processes in the trephine hole was present in most cases, but apparently not of an extent to interfere seriously with the patency of the hole. In several cases the angle was partially open so that some filtration may have occurred through natural channels.

Serious complications ensued in two cases: a traumatic cataract in one case and an intraocular hemorrhage, vitreous prolapse and dislocation of the lens in the other. One trephine closed up after three years of normal function. A second trephine has controlled the tension now for over two years. The failures were: two cases in which the angle was found to be closed and the trephine blocked by iris, the case of lens injury, and the aforementioned serious complication occurring during the operation, perhaps as the result of sudden decompression.

#### SUMMARY

1. From gonioscopic and clinical evidence it is concluded that failure of an iridectomy to control the intraocular pressure in a case of acute congestive glaucoma is in all probability due to the presence of extensive unbreakable peripheral anterior synechiae. Iridectomy, therefore, in contradistinction to iridencleisis and corneo-scleral trephining, is only suited for the early stages of acute congestive glaucoma.

2. Both iris inclusions and trephinings are successful in a very large percentage of acute congestive glaucomas irrespective of their duration.

3. Small iris incarceration combined with a basal iridectomy has become the choice of operation in the hands of the writers.

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Nature, in the production of disease, is uniform and consistent, so much so, that for the same diseases in different persons the symptoms are for the most part the same; and the selfsame phenomena that you would observe in the sickness of a Socrates, you would observe in the sickness of a simpleton. Thomas Sydenham.

## CHRONIC BRUCELLOSIS, A PUBLIC HEALTH PROBLEM

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EAST ST. LOUIS

The importance of Brucellosis as a public health problem in the United States has only been recognized for the past twenty years, in spite of the fact that it is a disease of worldwide distribution. While epidemic outbreaks have been described notably by Farbar and Mathews<sup>1</sup>, Beattie and Rice<sup>2</sup>, Borts and associates<sup>3</sup>, relatively few papers deal with the problem of chronic Brucellosis as a public health problem. Yet Brucellosis is a disabling disease, difficult to diagnose and difficult to treat. The difficulty in diagnosis is one of the reasons why many cases remain unrecognized and, therefore unreported. Yet morbidity reports are one of the prerequisites for an overall picture of local health conditions which need to and can be remedied by the action of the health officer in cooperation with the local and state authorities.

The purposes of this paper are 1.) to indicate the most reliable means of the proper diagnosis of Brucellosis. 2.) to discuss its relation to Public Health and 3.) to make recommendations which, if carried out, will result in a reduction of the morbidity rate from this disease.

*Diagnosis of Chronic Brucellosis* — While the acute form of Brucellosis resembles typhoid fever, the chronic form resembles tuberculosis. Low grade fever which may persist for weeks or months, symptoms of "neurasthenia", weakness, malaise, loss of weight, bursitis, peri arthritis, spondylitis, orchitis and lymphadenitis have been observed.

In the absence of any objective findings, other than low grade fever, chronic Brucellosis should be suspected. This suspicion should be substantiated, if possible, by a complete history from the patient. Laboratory tests, if properly interpreted, are an aid in the diagnosis. Many times, however, the laboratory tests are negative, and negative tests are usually interpreted as excluding Brucellosis. That this is a fallacy has been pointed out by Evans<sup>4</sup>. On the other hand, positive tests have been interpreted as denoting the disease, which is not true in all cases. In order to clarify these statements a discussion of the evaluation of laboratory tests is necessary. The

following tests are available: Blood culture, agglutination tests, opsonocytophagic index and the intradermal test.

*The Blood Culture* — There are very few cases of chronic Brucellosis which will yield a positive blood culture. Evans<sup>4</sup> obtained six positive cultures among 28 patients suffering from chronic Brucellosis. With the exception of one, the onset of the disease in these instances was within one year. Failure to obtain a positive blood culture, therefore, should not exclude the diagnosis of Brucellosis.

*The Agglutination Test* — When a uniform suspension of bacteria is mixed with the serum of an animal immunized against a brucella organism a flakelike clumping of the bacteria results. This agglutination is due to the action upon the bacteria by antibodies or agglutinins which are present in the immune serum. Unfortunately the reaction is not absolutely specific. The cross agglutination of *Pasteurella tularensis* with *Brucella abortus* may serve as example. Differentiation in these cases is possible, however, due to fact, that a given serum will agglutinate to a much higher titer with the homologous organism. By carrying out high enough dilutions, specificity of the reaction is retained.

There are two types of agglutination tests in general use: the microscopic and the macroscopic tests. The microscopic is a rather rough one but it has the advantage of being rapid, requiring little blood and calling for a minimum of apparatus. However, it is quantitatively inaccurate and has an uncertain endpoint. It is essentially a qualitative test and is being used in the laboratories of the Illinois Department of Public Health as a preliminary test to the macroscopic method. If the microscopic test is negative, the macroscopic tests will be negative also. If the microscopic test is positive then the macroscopic test is performed in order to obtain quantitative information as to just how high the titer will run. The macroscopic test is quantitatively accurate, has a sharp endpoint and gives information regarding the true agglutinative properties of the serum. Evans<sup>4</sup> regards a titer of 1:40 as the minimum suggestive of Brucellosis. Shaughnessy<sup>5</sup> believes that agglutination in a dilution of 1:80 is the lowest titer that has any significance. No matter what titer is eventually selected as standard, it should be realized that a

negative reaction or a low titer should not exclude the diagnosis of Brucellosis, since many authors have cultivated *Brucella* organisms from patients with negative agglutination tests.

*The Opsonocytophagic Index* — The opsonocytophagic index as an aid in the diagnosis of Brucellosis was introduced by Huddleson<sup>6</sup> and investigated by others. Huddleson concluded that individuals susceptible to the disease show a negative or very slight reaction. Infected individuals show a negative, weak, or moderate reaction and immune subjects show a marked reaction. It is important that the blood be not more than three hours old when the test is made Meyer<sup>7</sup> and others confirmed the usefulness of the opsonocytophagic index but warned that Huddleson's interpretations should not be accepted unconditionally.

*The Intradermal Test* — As in tuberculosis, a positive intradermal test signifies either past or present infection. It shows hypersensitiveness. This hypersensitiveness may be encountered without symptoms of the disease. It may be due to repeated drinking of infected milk or prolonged contact with infected animals. Heathman<sup>8</sup> found among workers in packing plants that their hypersensitiveness increased with their length of service. Prolonged existence of this hypersensitiveness often leads to confusion in the diagnosis of Brucellosis.

The intradermal test is performed by injecting one-tenth of one cc of a killed suspension of *Brucella* organisms into the skin of the forearm. The test should be given like a tuberculin test using a very fine short needle and should be read in four days. If negative at that time the patient should be kept under observation for another seven days. A weak reaction has the same diagnostic significance as a more severe reaction. It should be stressed that the agglutination test precede the intradermal test in order to avoid the presence of agglutinins in the blood.

*Appraisal of the Laboratory Tests* — In the evaluation of the laboratory tests as an aid in the diagnosis of chronic Brucellosis, it is concluded that the most accurate test is a positive blood culture. That it cannot be obtained frequently has been mentioned above. Next in significance is a positive agglutination test. Less reliable is the intradermal test and least informative of all is the opsonocytophagic index. Negative tests do not necessarily exclude Brucellosis. The identi-

fication of the disease in these cases can only be made by the exclusion of other diseases, an indicative history giving the clue to the "logical diagnosis" of Evans.<sup>4</sup>

*Public Health Aspect of Chronic Brucellosis* — The importance of the diagnosis of Brucellosis as an aid in the improvement of public health cannot be over-emphasized. We believe that our experiences will be of general interest since conditions similar to the ones which are to be described are prevalent in many parts of this country.

The area under consideration is the rural portion of St. Clair County, Illinois, and includes a population of approximately 70,000 people.

The East Side Health District comprises four townships, with most of its 100,000 population living in East St. Louis. The remainder of the county, including seventeen townships, is under the health supervision of the St. Clair County Defense Zone Health Department which had its beginning in October, 1942 and is still in the process of organization. The area of the East Side Health District has a milk ordinance and the entire population of this area is receiving Grade A pasteurized milk. The area now comprising the St. Clair County Defense Zone Health Department does not have any milk ordinances whatsoever. Attempts were made to pass such an ordinance several years ago when the area was under the supervision of a District Health Unit. However, one of the reasons that these attempts failed was that there was not enough evidence of the prevalence of undulant fever or other milk-borne diseases. The number of cases of undulant fever reported to the State from this area was as follows:

1940 — 1

1941 — 2

1942 — 3

These figures did not seem to represent a true picture inasmuch as it was known that several farmers whose cattle were suffering from Bang's disease had milk routes. It is true that the municipal areas received pasteurized milk from the St. Louis, Missouri milkshed but a large part of the population is still buying unpasteurized cream and butter from farmers calling at their doors. Evidence was also available showing that at least one pasteurization plant was selling two different grades of dairy products, the inspected products going into the area of the East Side

TABLE I.

Case	Initial	Age	Sex	O.S.	Diagn. made	Aggl.	Skin T.	O.I.	Source
1.	W.A.	43	M.	4/41	7/41	1:100	Pos.	43	Handling infected meat. Cut on finger started infection.
2.	L.S.	30	M.	1/42	4/42	5/27/42 1:100 1/30/43 1:300	Pos.	98	Dairy selling unpast. milk. Herd is known to have Bangs disease.
3.	C.K.	35	M.	2/42	7/42	1:400	Pos.	90	Drank unpast. milk, ate lots of home killed summersausage.
4.	A.McL.	43	F.	1939	1942	1:100	Pos.	45	Home killed summersausage bought from farmer.
5.	C.A.	35	F.	6/41	9/42	1:200	Pos.	45	Unpast. butter from farmer. His herd had Bangs disease. Cases 5 & 6 are sisters.
6.	K.P.	23	F.	6/41	9/42	1:100	Pos.	82	Same as case 5.
7.	B.W.	42	F.	1938	3/42	1:100	Pos.	Not done	Parents farm was only place where unpast. milk was used. Brother 1000 miles away also diagnosed as Brucellosis. He too drank unpast. milk on parents farm only.
8.	E.E.	35	F.	6/39	8/40	Neg.	Pos.	No record	Unpast. milk from dairy. Cows had Bangs disease at time of onset.
9.	G.P.	25	F.	1940	1942	1:200	Pos.	63	Drank unpast. milk from dairy. Cows had Bangs disease. Source same as 10.
10.	B.R.	37	F.	1938	1940	1:1600	Pos.	Not done	Two farmers whose cows had Bangs disease. Drank unpast. milk bought from them.
11.	A.P.	39	F.	1941	1941	1:1600	Pos.	85	Ate lots of home killed summersausage.
12.	W.B.	58	M.	1938	3/42	1:100	Pos.	98	Drank unpast. milk and ate home killed summersausage.

(Continued on page 275)

Health District while the other products were sold in the area of the St. Clair County Health Department.

With this in mind, an attempt was made to uncover additional cases of Brucellosis in the area of the St. Clair County Defense Zone Health Department. It was found that there were two physicians in this area practicing in the same office who had diagnosed approximately one hundred cases of Brucellosis within the past two and a half years. Yet only two of these cases had been reported. The problem confronting us was to find out what the reasons were for such a number of cases to be concentrated in the hands of two physicians, while the remainder of the physicians apparently did not see as many cases. An additional reason for our investigation was that, if we did make an attempt to get a

milk ordinance passed in the largest municipality of this area, our evidence should be fairly foolproof.

With this in mind we interviewed both physicians with respect to the diagnosis of Brucellosis. Both physicians had been well aware of the fact that there were probably a large number of cases of undulant fever in the area and they therefore made it their business to test many of their patients for this disease, especially the cases in which Brucellosis appeared to be the "logical diagnosis." They used the skin test, opsonocytophagic index and the agglutination test as an aid in the diagnosis. The tests were sent to a reliable private laboratory. This laboratory used the microscopic interpretation of the agglutination test. Some cases were diagnosed on the basis of clinical symptoms and opsonocytophagic index alone.

TABLE I, (Continued)

13.	E.S.	54	M.	1940	4/41	Pos.	Pos.	61	Reactors in own herd. Patient is farmer.
14.	H.S.	35	F.	1938	12/42	1:100	Pos.	83	Unpast. milk on parents farm. Cows were losing calves at that time.
15.	D.K.	9	F.	2/40	12/41	1:25	Pos.	82	Reactors in parents herd at time of onset.
16.	B.T.	32	F.	Not known	6/42	1:400	Pos.	92	Unpast. milk and home killed summersausage.
17.	W.B.	50	M.	1/42	5/42	No record	Pos.	No record	Drank unpast. milk on farm of relatives.
18.	A.S.	58	F.	1942	9/42	1:100	Pos.	65	Unpast. butter.
19.	E.H.	48	F.	1941	10/41	No record	Pos.	No record	Home killed sausage on farm.
20.	H.B.	29	F.	6/40	6/40	No record	Pos.	No record	Home killed summersausage from local butcher.
21.	R.V.	9	M.	5/43	5/43	1:400	Pos.	Not done	Drank unpast. milk on farm of relatives.
22.	F.T.	50	M.	Sev. yrs. back	9/42	1:100	Pos.	75	Own cow lost calf.
23.	W.O.	47	M.	5/42	6/42	1:100	Pos.	53	Drank unpast. milk on farm of friends.
24.	I.S.	43	M.	12/42	1/43	1:350	Pos.	Not done	Drank unpast. milk from own herd. Cows had Bangs disease.

## Legend:

O.S. — Onset

Aggl. — Agglutination

T. — Test

O.I. — Opsonocytophagic Index

Rx — Treatment

"No record" indicates that no record was available at time of investigation. Agglutination and opsonocytophagic index were done in these cases.

The physicians were kind enough to let us make a study of the records of their cases and it was decided to make an epidemiological investigation, regardless of the laboratory tests. Twenty-four cases were investigated. (Table 1) These twenty-four cases gave as sources of their infection: (1) dairy products in sixteen cases; (2) homekilled summersausage in four cases; (3) unpasteurized dairy products and homekilled summersausage in three cases; and (4) handling infected meat by a meat-cutter in one case.

A history of drinking milk from cows infected with Bang's disease was obtained in eleven instances. All gave a history of using unpasteurized dairy products or homekilled uninspected summersausage. All cases presented signs of nervousness, fatigability, loss of weight over a period of time and low grade fever. All cases, with the exception of two, had been examined for

tuberculosis and were found to be negative. Most of the patients had seen other physicians without obtaining relief from their symptoms and finally were referred by some persons who had been diagnosed by the two physicians as having Brucellosis to their physician. This explained the concentration of cases in the hands of these two doctors.

In studying the tabulation it should be remembered that most of the infections were older than one year, when seen by a physician. Some of them came under a doctor's care as long as four years after the onset of symptoms. It should be realized that after such a long period of time the agglutination test cannot be expected to show a very high titer, and that if the macroscopic test had been performed, many of these cases would not have shown any agglutination. It is interesting to note that in chronic Brucellosis, the microscopic test seems to corroborate the clinical

findings better than the macroscopic test. As mentioned previously, the microscopic test was used in these cases.

After we had completed the investigation of the cases it was decided to find out what the prevalence of Bang's disease was in the cattle in this area. For this purpose one of the Assistant State Veterinarians was consulted. This veterinarian had performed the majority of Bang's tests on tested herds, yet his figures presented facts regarding only 10% of all herds in this area. He found that among one hundred herds tested by him, approximately fifty showed reactors. This shows a prevalence of 50% reactors in herds tested. Some of these herds were retested and again showed reactors. Yet some of the owners did not sell their cattle but sold the milk from these cattle to their customers. Milk sold by one of these farmers apparently was the cause of at least three of the cases investigated by us. It is believed that not more than 15% of the herds in this area have been tested for Bang's disease.

Inasmuch as Brucellosis is not only contracted from infected cows but also from infected swine and goats, it was decided to go to some of the packing houses and talk to some of the veterinarians. Since practically no goats are raised in this part of the country, Brucellosis in goats does not present a problem. However, the processing of hogs plays an important role in the dissemination of Brucellosis.

It was found that there are several butchers in the area who sell uninspected meats and who advertise homekilled summersausage as a specialty. Two of our cases could be traced to such meatmarkets. All packing houses selling inspected meat process summersausage in such a manner that there is no danger of infection. Inasmuch as meat from beef and pork is usually well cooked when prepared at home there is no danger of infection, since thorough cooking destroys the *Brucella* organisms. However, attention must be called to the fact that at the present time, with lunch rooms crowded, hamburgers and porksausage are served which are not always well done. The danger of Brucellosis being contracted at such places is greater than most will suspect. There is also a large number of meatcutters in packing houses who contract Brucellosis through handling meat. It is interesting to note that

practically all cases of Brucellosis reported in the area of the East Side Health District are found in meat cutters working in packing houses.

#### RECOMMENDATIONS

It is the writer's opinion that Brucellosis in man can be reduced if not eradicated. It is only natural that any steps taken to eradicate Brucellosis in animals will inevitably lead to the eradication of Brucellosis in man. Our recommendations, therefore, are based upon the eradication of Brucellosis in animals. For this purpose several prominent veterinarians were consulted and their opinions as well as those of the writer are set forth herewith:

1. All cattle, swine and goats should be tested for Bang's disease. State laws should be enacted requiring testing. Such laws are in existence for tuberculosis and they could easily be amended to include Bang's disease.
2. All reactors found should be branded on the jaw with a capital "B" and provisions made for the sale of such animals to the packing houses who have Government Inspectors.
3. Legislation should be enacted making it unlawful for any butcher to buy animals so branded for slaughter.
4. Provision should be made for the reimbursement of the farmer so that he may not sustain financial loss when he sells the reactors.
5. Calfhood vaccinations with *Brucella abortus* antigen should be compulsory.
6. Meatcutters and packing house personnel should receive education and instructions as to the proper handling of branded animals.
7. The United States Public Health Service Standard Milk Ordinance should be adopted and enforced.

We believe that if these steps were carried out they would lead to a reduction in, and eventually to the eradication of Bang's disease in animals as well as man. If no infected cattle can come into the hands of retail butchers, the spread of the disease from homekilled summersausage would be eliminated. Milk ordinances will help to prevent the spread of the disease through dairy products and the branding of cattle would caution any meat handler in packing houses to work with gloves in order to prevent infection.

## SUMMARY

The diagnosis of chronic Brucellosis is difficult in cases with negative agglutination tests and absence of positive blood cultures. Twenty-four cases of chronic Brucellosis were investigated. The necessity of reporting cases cannot be stressed enough in the interest of the improvement of Public Health. Recommendations were made which, if followed, would lead to the reduction, if not the eradication, of Brucellosis.

The cooperation of the following is gratefully acknowledged:

C. O. White, M. D., Belleville, Illinois.

W. H. Walton, M. D., Belleville, Illinois

Howard R. Lundy, Ph. D. Springfield, Illinois

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## PENICILLIN FOR SYPHILIS IN PREGNANCY

Preliminary observations indicate that penicillin has a definitely good effect both on the mother and on the child in syphilis in pregnancy and on infants who were born with the disease, J. W. Lentz, M.D.; Norman R. Ingraham Jr., M.D.; Herman Beerman, M.D., and John H. Stokes, M.D., Philadelphia, report in *The Journal of the American Medical Association* for October 14.

They point out that the treatment of the pregnant syphilitic women and of the infants who acquired the disease prior to birth with

weekly injections of nearsphenamine and mapharsen supplemented by a bismuth preparation, "although eminently satisfactory from the standpoint of both preventive and curative medicine, still has several aspects in which improvement may be expected. . . ."

The authors believe it encouraging that among the women treated by them not a single stillbirth or neonatal death has occurred, whereas untreated pregnant women with early syphilis almost uniformly give birth to dead or diseased children. They emphasize, however, that the period of observation of the cases has not been long enough to be certain of the permanent effects of the treatment. The four physicians also report encouraging results in their treatment of congenital syphilis.

## NEW DRUG AIDS TREATMENT OF MENINGITIS

The combined use of sulfonamides and penicillin in the treatment of pneumococcic meningitis (infection with pneumococci of the membranous lining of the brain and spinal cord) appears to be more effective than any previous method used in combating this disease, Antonio J. Waring Jr., M.D., and Margaret H. D. Smith, M.D., Baltimore, report in *The Journal of the American Medical Association* for October 14.

Of 12 patients with the disease who were given combined penicillin and sulfonamide therapy, 11 recovered and 1 died. "These results," they say, "are better than our experience with sulfonamide alone, with sulfonamide and serum combined or with penicillin alone." They point out that prior to the development of the sulfonamides, pneumococcic meningitis was almost invariably a fatal disease. With the advent of the sulfonamides and later its combined use with serum, the mortality rate has been lowered to some extent.

They point out that the mortality rate of the disease is particularly high in infants. "Eight of our 12 cases," they say, "fall under 2 years of age. With serum and sulfonamide therapy we could have expected to lose 6 or 7 of these 8 infants. Under penicillin and sulfonamide therapy we lost 1. All 4 older patients recovered. Under the old form of therapy we would have expected to lose 1. . . ."

### A VITAMIN SURVEY OF NORMAL INDUSTRIAL WORKMEN

Exploitation of the vitamins, both commercially and professionally, is without rival. The existence of widespread "subclinical" vitamin deficiency is claimed. A survey of healthy men engaged in industrial work therefore seemed appropriate because the presence of mild forms of vitamin deficiency disease among them might seriously interfere with the industrial output of our country.

A vitamin survey of 1,265 healthy men engaged in industrial labor was made. The dietary history of 300 men revealed that 24 of them might have an inadequate Vitamin A intake; however, no cases of xerophthalmia, night blindness, or specific dermatosis were noted.

No case of subclinical pellagra or Vitamin B deficiency were seen.

Cheilosis and conjunctivitis indicative of riboflavin deficiency also were not observed.

None of the 1,265 men examined showed any clinical signs of scurvy, though 50 had plasma Vitamin C levels under 0.5 mg. Thus our observations, together with others in the literature, indicate that plasma ascorbic acid saturation is not necessary for good health.

The increasing number of reports upon the widespread prevalence of vitamin deficiency disease and its deleterious effect upon health should therefore not be viewed with too great alarm.—*J. G. Schnedorf, M.D., C. J. Weber, M.D., and Logan Clendening, M.D., American Journal of Digestive Diseases.*

Where there is no seed, there can be no harvest regardless of the type of soil. Elimination of open tuberculosis from the community means ultimate eradication of the disease. Obviously any program for tuberculosis control must include finding not only the infectious cases but also those in the non-contagious or minimal stage of the disease. With the dramatic and popular appeal of special tuberculosis case findings, one is apt to ignore the basic principle of the epidemiology of tuberculosis. The longer and the more intimate the exposure, the greater the risk of the exposed person regardless of age level.—*Hilbert Mark, M.D., Amer. Rev. of Tuber.*

In certain infectious diseases, treatment of the patient is only part of the physician's duty. The elicitation and examination of all who have had suspicious contact with the infected individual are on indispensable control measure. Tuberculosis and the venereal diseases are outstanding examples of the need for this precaution. To treat the patient without discovering the probable source and possible channels of spread of the disease is to save one tree and let the forest burn. Editorial, Jour. Med. Soc. Co. of N. Y., July 1, 1944.

### PHYSICAL THERAPY CLINIC IN THE JUNGLE

A physical therapy clinic was created recently out of makeshift materials by members of a hospital unit on the Ledo Road, the highway which Allied troops are building from Assam, India, through Burma to China against the vigorous opposition of the Japanese. Lieut. Col. Willis M. Weeden of Woodbury, Conn., chief of surgery in the unit, assigned Capt. Hyman D. Stein of Elkins Park, Pa., and 2d Lieut Pauline Moudy, Army Nurse Corps of Alhambra, Calif., to the task. They made a dry heat apparatus out of a crate and electric bulbs. Stirrups with ropes and weights made weight lifting devices, a Chinese officer provided a bicycle for leg exercises, and old gasoline tanks were turned into whirlpool leg and arm baths. A water heater was created from a gasoline drum, and the hard rubber core of an old soft ball was used for hand and finger exercises.

### SURGICAL OPERATING TRUCKS TAKE HOSPITAL TO WOUNDED SOLDIERS

The Army Medical Department has established mobile surgical groups which provide hospital facilities for wounded soldiers near the front lines. The tent is carried on a two wheel trailer along with an electrical generating unit; the hospital vehicle can be made ready for full operation within thirty minutes. Sufficient room is provided for operating teams composed of surgeons, nurses and technicians, making it possible for 2 men to be operated on simultaneously. The unit is capable of caring for from 80 to 100 men a day. The truck is equipped with a variety of special instruments for orthopedic, nerve, chest, maxillofacial and brain surgery; operating tables, steam and dry sterilizers, lighting equipment, medicines, blood plasma, bandages and dressings, record files, auxiliary power unit, surgical linens and operating gowns.

### U. S. DOCTORS SAVE TWO HUNDRED JAVANESE

The lives of more than 200 Javanese workers were recently saved after being treated by American doctors when General MacArthur's men invaded Numfoor Island, a Japanese held air base at the entrance of Geelvink Bay, off the northeast coast of Netherlands New Guinea on July 2. Hundreds of Indonesians had been transported there from other Netherlands East Indies Islands to work on defense projects. Some were on the verge of death as a result of starvation, overwork and disease. Medical personnel of American hospital ships were immediately assigned to treat these workers, a number of whom were in such critical condition that they needed blood transfusions. Most of the victims of Japanese cruelty pulled through, but some were beyond help and died en route to Australia.

# Physical Medicine Abstracts

John S. Coulter, M.D.

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## BRONCHIAL ASTHMA TREATED BY BREATHING EXERCISES

H. I. Weiser, M.D., In *THE LANCET*, No. 6313;275,

August 26, 1944

### METHOD

Treatment begins with massage of the chest, back and front, between the attacks; at each session massage should be continued until a skin reaction is visible. Rhythmic compression of the chest follows, carried out by the physiotherapist with the patient lying first on his back and afterwards on his side. At each compression the patient emits a hissing or humming sound throughout expiration. Blowing exercises at the spirometer follow, the patient being taught to read off and note down his own vital capacity. Later in treatment the patient carries out increasingly vigorous exercises in the gymnasium. When a patient makes a muscular effort — whether in gymnastics, when playing a game or merely in the course of his ordinary life (for instance when going upstairs) — he should make a practice of breathing out with a hissing or humming sound. No attention need be paid to inspiration, which takes place before or after the effort is made.

At each treatment session, after a few strenuous exercises the patient is allowed to rest, either sitting, or lying on his back with his knees bent. During this interval the physiotherapist compresses his chest again, and the patient hisses or hums as he breathes out. The patient counts his breaths aloud, and after the prescribed number (between 20 and 80), begins his exercises again. The rest-pauses are increased towards the end of the session, and the number and strenuousness of the exercises are diminished. At the end of each

treatment the vital capacity is measured again, and it is specially important that the patient should read off and take down all measurements of his own increases in efficiency, not only the spirometer readings, but the number of strokes he pulls on the rowing apparatus and so on. Exercises should be numerous and varied so that he maintains a lively interest in them. If he is given only a few exercises, however useful they are, they become mechanical and are carried out without interest and with little success. Besides gymnastic exercises with and without apparatus he should be given lessons in boxing and ju-jitsu, and plenty of exercises for correcting posture.

After 2-4 weeks of treatment the breathlessness is deliberately induced in the patient by giving him several exercises in quick succession. He will find that instead of developing the dreaded attack he is able to get rid of the breathlessness quickly by concentrating on prolonged expiration. During an attack the untrained asthmatic patient gasps helplessly for breath, and his air-vesicles are filled to maximum capacity. But the trained patient has learned to "breathe away" an attack: he knows that the only way to relieve himself is to concentrate on long expiration. His relations must also be taught how much the severity of an attack depends on their reaction to it. The patient is given this regime to follow at home:

1. He is to breathe out with a humming sound 5-10 times, morning and evening.
2. He should sing and whistle as much as possible during the day.
3. He is given morning and evening gymnastic exercises to do.

4. He is told that coughing is bad manners; he should avoid it as much as possible by taking several quick inspirations, making the expirations with a hissing sound.

### PHYSIOLOGICAL ASPECTS OF PHYSICAL THERAPY AND REHABILITATION

Ora L. Huddleston, Major M.C., A.U.S., Physical Therapy Section, Fitzsimons General Hospital, Denver, Colorado. In *FEDERATION PROCEEDINGS*, 3;3:254, September, 1944

Physical therapy always has participated in the rehabilitation of the sick and disabled. At the present time it constitutes an integral part of practically all rehabilitation programs. Its importance in the treatment of wounded soldiers and veterans was fully appreciated by the medical profession during and following the last war. Marked advances were made in the treatment of wounds and injuries by the application of physical therapy principles. Many of these principles were employed in definitive therapeutics and were further utilized during the period of convalescence. The use of such principles contributed to the establishment of maximum physical and psychological benefits which, when combined with supplemental vocational or professional training, qualified the individual to resume his economic and social responsibilities as a citizen in civilian society. The earlier advances of physical therapy have been maintained somewhat since that time but probably not to the high degree of development obtained at the close of the last war. New interest and an even greater appreciation of these principles have developed during the current conflict. It seems very likely that noteworthy contributions will be forthcoming which will hasten and even exceed the maximum amount of rehabilitation obtainable a few years ago.

Current conception of the role of physical therapy in rehabilitation. It is believed that physical therapy can participate most effectively in rehabilitation by utilizing the following procedures: 1, institute physical therapy treatment as soon as possible; 2, treat the individual as a whole which means treating the psychological aspects of the patient's disabilities as well as the physiological and pathological processes; 3, in prescribing physical therapy treatments, make use of principles which are based on physio-

logical reactions of the body, and outline a treatment program which is best suited to correct the individual and collective abnormalities of the person; 4, co-ordinate and integrate the physical therapy treatment program with other types of treatment. When the above mentioned procedures are followed, physical therapy will contribute maximum service to the rehabilitation of the individual.

### THE SCALENUS ANTICUS SYNDROME

Major Roy L. Swank and Major Fiorindo A. Simeone Medical Corps, Army of the United States. In *ARCHIVES OF NEUROLOGY AND PSYCHIATRY*, 51;5:442, May, 1944

#### CONCLUSIONS

The cases of 15 patients with a condition diagnosed as the scalenus anticus syndrome are classified into two main groups: those of a superior type due to compression of the upper roots of the brachial plexus, principally of the sixth and seventh cervical nerves, by the tendons of origin of the scalenus anticus muscle, and those of an inferior type, due to compression of the lower roots of the brachial plexus, principally of the eighth cervical and the first thoracic nerve, by the same muscle near its insertion.

The mechanism of compression is thought of as a vise, the ventral jaw of which is the scalenus anticus muscle. The structure forming the dorsal jaw varies. Section of the scalenus anticus muscle removes the ventral jaw of the vise and renders the vise ineffective.

The etiologic factor in most cases seemed to be hypertrophy of the scalenus anticus muscle. Strenuous exercise and overactivity of the respiratory muscles appeared to be the most important causative factors in this hypertrophy. In a few cases the syndrome may have been precipitated by "myositis" or "myalgia."

Seven of the patients were relieved by a regimen of rest, posture and physical therapy; 8 (2 with a bilateral syndrome) were relieved by anterior scalenotomy.

About 150,000 tuberculosis individuals have been prevented from entering the armed forces by the use of a chest X-ray in the preinduction examination. Esmond R. Long, Colonel, MC, U. S. Army.

# Industrial Health

Committee On Industrial Health — Frederick W. Slobe, Chm., 2024 South Western Ave., Chicago, Frank P. Hammond, H. A. Vonachen, R. I. Barickman, C. O. Sappington, Milton H. Kronenberg.

In the April, 1944 issue of the *British Journal of Industrial Medicine*, some interesting data on rehabilitation, trends in industrial medicine, cutting-oil dermatitis, and various informative abstracts appear. Selected excerpts on these subjects follow:

## INDUSTRIAL ASPECTS OF REHABILITATION

A meeting was held on March 10, 1944, Professor H. P. Gilding in the chair, when Dr. Donald Steward opened a discussion on "Industrial Aspects of Rehabilitation." With the development of industrial medical services it should be known how far they could take part in rehabilitation. The word was now used for many purposes; for example, rehabilitation of Europe, of housing, of industry and social rehabilitation. It could be divided into three main phases—reconditioning, retraining and resettlement. The problem under discussion, however, was the rehabilitation of the sick and injured worker. At present this was largely in the hands of hospital services either within hospitals themselves, or at special rehabilitation centres in the country not necessarily attached to any one hospital. With good treatment the need for special rehabilitation decreases. There is a risk that it may be plugged too hard at the expense of earning capacity, and occupational therapy in particular may be overdone. The policy of setting up social service departments at hospitals had been successful; for example, that at the Glasgow Victoria Infirmary. The function of the almoner was changing, and she was an important contact between industry and the sick and injured worker.

Industry, and in particular the employer, could contribute to rehabilitation by promising

continued employment and removing the fear of insecurity; by arranging alternative work, under medical control, for temporarily unfit workers—larger firms could retrain their own permanently disabled workers, Government schemes should deal with the smaller firms; by giving assistance on matters arising under the Workmen's Compensation Act; and by providing sheltered workshops for convalescent sick and injured workers in the larger organizations—these could be set up on a communal basis for the small factories.

Objections to alternative or light work are—it is difficult to find in many industries; it is difficult to keep under medical control and may actually retard recovery; it increases factory overheads and may not be popular with managers or the worker's mates; alternative work may become nothing more or less than a scrap-heap if the patient becomes "lost" in the works on some quite unsuitable job; it is sometimes abused by Insurance Companies who ask for it in order to reduce county court settlements. But if properly selected and controlled, and with adjustment of overheads, it is possibly one answer to the problem.

Where firms attempt to set up rehabilitation centres on their own, without regard to hospital services, industrial medicine can be brought into disrepute. Isolationism in this respect can only bring failure.

Personnel management must play its part in supervision of return to work. In factories with less than say 300 workers this function becomes the direct responsibility of the manager. Education of works managers and foremen therefore becomes increasingly important.

The industrial medical officer should analyze the various occupations in his organization in relation to working capacity. Many jobs can be done by cripples who frequently compete successfully with normal workers. Certain jobs can be allocated to both temporarily and permanently disabled workers. The industrial medical officer must maintain close contact with hospitals in both medical and surgical cases.

The speaker contended that where more than 5000 workers were employed an essential development of industrial medicine must be a rehabilitation or sheltered workshop at the place of work under the joint medical supervision of works doctors and hospital specialists. In groups of this size it was estimated that every day up to 5 injured workers and up to 30 sick workers could be given true occupational therapy during treatment by hospitals or general practitioners. Rehabilitation must include convalescent sick workers, who outnumbered injured workers by at least thirty to one.

Mr. William Gissane, speaking next, had recently been at a meeting addressed by the Minister of Labour who had stated the Government policy in connection with the Disabled Persons (Employment) Act. Mr. Bevin had emphasized that employers could do a great deal of rehabilitation work on production lines, and this had been promised him by many industrialists. It is the Government's view, therefore, that employers will act as the chief agents in implementing the Act. Only when the employer cannot carry out the work will the Government set up its own rehabilitation arrangements. Whatever facilities are set up by employers will be examined by the Government, and if found adequate will be augmented by certain grants and maintenance costs.

During the last 12 months the Accident Hospital had cooperated with a large engineering works in an experiment on rehabilitation, now apparently a part of the Government policy. A sheltered workshop had been set up for injured employees of the firm, most of whom were his patients at the hospital. The principle was that the disabled worker was given remunerative work during treatment. It was possible to harness to production machines the repetitive exercises necessary for loosening up stiff joints and strengthening muscles, and by this method

of remedial exercises the attention of the worker was on the job he was doing, rather than on his disabled limb. This was something very difficult to obtain in hospital treatment. Mr. Gissane then showed a short film dealing with his experiment.

Mr. Farrer, the manager of the rehabilitation shop shown in the film, was present by invitation. He described his part in the experiment and how he dealt with the workers. He interpreted surgical advice into terms of machinery and production. Out of 200 cases that had gone through the shop he had only been unsuccessful with one. He had frequently to remove certain fears from the minds of workers; fears connected with compensation, future employment, and wages. He had frequent talks with workers on many subjects such as accident prevention and cleanliness in the factory. The shop itself was a model shop from these points of view, and had done something to educate workers and management in good factory housekeeping.

Dr. S. Wand stressed the importance of including medical cases in any rehabilitation scheme. Without this wider view there could be no full rehabilitation service, nor could it form part of a comprehensive medical scheme. Professor Seymour Barling had recently seen many returned wounded soldiers. He was impressed by the high amputation rate which was greater than in the last war. There was much need, therefore, for retraining permanently disabled soldiers. Retraining must be considered a specialized problem. Dr. W. J. Lloyd maintained that the resettlement phase of rehabilitation should be accompanied by an intelligent assessment of injuries. There should be some system set up whereby skilled medical officers could interview workers and make recommendations to industry. Knowledge of the physical requirements of different jobs by industrial managers and doctors would do much to help in this assessment. There was no mysticism in rehabilitation. Group Captain O'Malley said that the R. A. F. were concerned with resettlement within industry of permanently disabled air crews and other personnel. They had set up a special mechanism to deal with this, and recommendations about special work which these men could do would be communicated to the Ministry of Labour and to industry.

Sir Anthony Bowlby asked how far the experimental rehabilitation shop had paid for itself. Dr. N. T. Glynn, the medical officer at the factory concerned, and in medical charge of the shop, replied that approximately 80 per cent of the cost had been met by the products manufactured. When a better flow-through of materials was obtained the net cost to the firm would be even less. Mr. Farrer said that it was proposed to plan for the manufacture of groups of units which together would compose some finished article produced entirely by the shop. In this way his workers would have an interesting incentive; they would know what they were making and have some goal to aim at. In answer to another question by Sir Anthony Bowlby he explained that payment in the shop was by day-rate and not by piece-work methods. Because of the financial incentive with piece-work men might further retard recovery of injured parts by working them too hard, and so defeat the real aim of the experiment.

### TRENDS IN INDUSTRIAL MEDICINE

In an address before the Industrial Research Board, Dr. R. S. F. Schilling said in part:

"In the future medical services will have to give more attention to prevention and achievement of positive health. There must be a vast extension of the existing industrial medical services, for it has been estimated that only 25 per cent of the working population are covered. With this expansion ahead now is the time to understand industrial medicine. At present there is a tendency for it to become entirely a casualty service or a panel service at the place of work. Industrial medical officers have not been trained in preventive medicine and therefore tend to concentrate on the branch of medicine which they know, at the expense of the aspects with which they are not familiar. The three tasks ahead are the improvement of working environment and the placement of workers in proper jobs, the prevention of occupational disease, and the prevention and treatment of injuries at work including some phases of rehabilitation."

One active case of tuberculosis in a group of silicotic workmen can create a situation of potential dynamite. L. E. Hamlin, M.D., Rocky Mountain Med. Jour., June, 1944.

### PREVENTION AND CONTROL OF CUTTING-OIL DERMATITIS

Edward Collier of Glasgow, in discussing this subject, says that the chief measures in prevention are:

- (1) The selection of suitable employees, by means of a history eliciting a record of previous attacks of dermatitis, avoiding the fair-haired and pale types, and avoiding those who have thin skins and skin which is too dry or too greasy.
- (2) Education of the workers—this includes advice as to personal cleanliness with thorough washing not only at noon but also at the mid-morning and mid-afternoon periods. With respect to protective lotions Mr. Collier states:

"The leaflet also advises all employees that protective lotions are supplied free from every first-aid room in the factories. If working with soluble oil, they should ask for Alkaline Wash; if working with paraffin oil, they should ask for what the writer calls Dermis Wash, to contrast with Alkaline Wash. The respective formulae of these washes are:

#### *Alkaline Wash*

Chlorinated Lime .....	grains 175
Soda Bicarb. Crystals .....	grains 350
Acid Boric Crystals .....	grains 35
Aq. ad. ....	oz. 30

#### *Dermis Wash*

	Per Cent
Ivory Soap Flakes .....	7.48
Glycerine (chemically pure) ....	26.40
Sodium Silicate .....	24.20
Tragacanth .....	0.21
Oil of Lemons .....	0.16
Water .....	41.60

The paste thus formed is dissolved in water in the proportion of  $2\frac{1}{2}$  lb. of paste to 2 gallons of water.

Further advice is given in the leaflets to use these washes after getting home from work and before starting out in the morning, as follows:

1. Dilute the wash 1 part to 10 parts of water.
2. Apply the wash to your hands, arms, etc.
3. Wash your hands, arms, etc., with hot

water and soap (not carbolic). Dry them thoroughly.

This will remove all traces of oil from your skin and will prevent the onset of dermatitis.

N. B.—Oil dermatitis is not infectious.

By means of these leaflets all workers who will be in contact with oil are made aware, from the first day they start, of the value of personal cleanliness and of the availability for all who need them of protective skin lotions. In spite of the large number of barrier creams and ointments at present on the market, the writer has not found anything the action of which is better than these lotions."

Frequent changes of overalls and verbal propaganda were found to be valuable.

### (3) Measures on the job.

"By co-operation with the superintendents and their supervising staffs, the following measures are attended to:

1. Changing the oils as frequently as they become dirty.
2. Adequate cleansing of oil containers as often as necessary.
3. Splash guards on the machines to be adequate.
4. Where required, to see that all workers are supplied with, and encouraged to wear, protective aprons and armlets.
5. The oils should be periodically analyzed. An outbreak of paraffin oil dermatitis, evidenced by erythema of hands with vesiculation of the webs of the fingers, occurred among workmen engaged in one of the paraffin wash sections. The oil was analyzed and was found to be contaminated with cresylic acid. Appropriate steps were then taken to eliminate this."

As to treatment, Mr. Collier states:

"Most of our cases of developed oil dermatitis are seen in the early stages, and the most efficacious treatment of oil acne consists in washing the areas with soap and water and applying 1 per cent gentian violet. The diffuse macular and papular rashes and paraffin erythemas are treated with a lotion containing calamine and ichthyol or zinc and ichthyol cream; then when the condition has improved, the patients are again reminded of the protective measures.

In a small proportion of cases, transfer to a job away from oil is deemed a necessary addition to treatment."

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The following are some of the abstracts appearing in the April, 1944, issue of the *British Journal of Industrial Medicine*:

WEIGHT LIFTING. TUGMAN, R. E. *Indust. Welfare*, 1943. November-December, p. 169.

The loads which some workers are called upon to lift may be very great. The stowers in the jute and flax industry carry bales of jute weighing 400 lb., but considerable reductions in many loads have been made in recent years, e.g. the 280-lb. sack of flour has been generally replaced by the 140-lb. sack. The lifting of weights is very different from carrying them, and raising a load from the ground is particularly onerous. The principle to be adopted is to use the leg muscles, not the abdominal muscles. When lifting from the ground the feet should be kept close together, the knees bent and the back straight. The load is firmly gripped and the knees straightened, the strong leg muscles doing all the work, whilst there is very little strain on the straight back. The effects of excessive weight lifting are cumulative, and women and young persons should be particularly watched. They should not be allowed to lift weights above breast level, and should learn to throw as little strain as possible on the abdominal muscles. The avoidance of lifting accidents should be a matter of pride, and the occurrence of such an accident should be considered a slur on the department in which it occurs.

The author maintains that weight lifting very seldom induces hernia.

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CREOSOTE BURNS. JONAS ADOLPH D. *J. Industr. Hyg.*, 1943. Vol. 25, p. 418.

The construction of barracks and temporary housing structures calls for the increasing use of wood preserved with creosote. The present observations on the effects of creosote were made during the construction of a U. S. Navy camp, and 450 patients, or a sixth of the workers, had to be treated for creosote burns. The pieces of timber were dipped into creosote tanks and after drying for several days were sawn into short blocks by the carpenters. This particular process was the chief cause of the burns, as the sawing caused the scattering of fine sawdust saturated with creosote, which burnt the unprotected skin. Workmen with a fair skin and light hair were particularly affected, but coloured workers were scarcely affected at all. Seventy per cent of the cases were mild, showing erythema of the face, followed, after a few days, by some pigmentation. In the 30 per cent of severe cases there was intense burning and itching, followed by considerable pigmentation and desquamation. The most common complication was inflammation of the conjunctiva. The most suitable preventive measures were to apply a generous coating of vaseline to the face, and to wear dark sun glasses.

PLUMBISM RESULTING FROM OXY-ACETYLENE CUTTING OF PAINTED STRUCTURAL STEEL. TABERSHAW, IRVING, R., RUOTOLO, BENJAMIN P. W. and GLEASON, ROBERT P. *J. Industr. Hyg.*, 1943. Vol. 25, p. 189.

A group of 14 men were employed in cutting up the steel girders of an elevated railway by means of oxy-acetylene torches. The girders were coated with lead-bearing paints containing 7 per cent of lead, and though the men were supplied with mechanical filter respirators all of them were ill at one time or another with symptoms of lead poisoning. The urine of the men averaged 0.39 mgm. per litre, and in the two examples quoted the haemoglobin had fallen to 81 per cent, and the red blood cells to 4,200,000 per c.mm. The air in the breathing zone of the men contained on an average of 12 mgm. lead per 10 cubic metres.

PROTECTION OF RADIUM DIAL WORKERS AND RADIOLOGISTS FROM INJURY BY RADIUM. EVANS, ROBLEY, D. J. *Industr. Hyg.*, 1943. Vol. 25, p. 253.

In modern dial painting plants the work is usually carried out in separate hoods for each worker, with forced suction ventilation for the removal of the radon liberated from the stocks of paint and finished work under the hood. Ingestion of radium is now due mainly to carelessness in getting radium paint on the fingers and clothing. Personal cleanliness is therefore essential. The hands must always be thoroughly cleaned before eating or smoking. A suitable solvent (a mixture of xylene, trichlorethylene and ethyl alcohol) is rubbed on to the dry skin and removed, before it evaporates, with soap and water. The inhalation of radium paint dust is an even more important mode of entry into the body than ingestion by the mouth. The greatest body of radium content is usually found, not in dial painters, but in inspectors and instrument assembly workers who remove small chips of radium paint in the course of their work. The total radium content of an individual can be estimated, and it is considered that an individual whose exhaled breath contains 1 micromicrocurie of radon per litre has 100 per cent of the "tolerance" value of radium. Only about 15 per cent of dial painters, etc., ingest or inhale more than this tolerance amount, and they, when found, should be transferred for 2 to 4 weeks to non-radioactive work, during which time they excrete most of their radium. The author considers that complete protection from radium poisoning risks can be achieved by following the official regulations. The paper includes much exact information about the various radium products, including gamma rays, but these rays are normally unimportant in dial painting plants.

DUST REDUCTION AT THE COAL FACE BY MEANS OF WATER-SPRAYS. WARNER, C. G. *J. Industr. Hyg.*, 1943. Vol. 25, p. 303.

The value of water in reducing dust in coal mines is well known. By a generous use of water in an

American mine the investigators found that the dust could be reduced from 4340 particles to 176 particles per c.c. Observations by the author in a South Wales anthracite mine were made by a method that could readily be adopted in mining practice. Water was stored in casks near the coal face, and the spraying was done by means of the stirrup pump used for fire fighting in Great Britain. When a heap of material was being removed the fresh dry surfaces were sprayed from time to time. The total consumption of water in three stalls of a longwall face was 10 gallons per hour, the working time expended on spraying, being inappreciable. Dust sampling was carried out by means of the thermal precipitator, and the average total dust counts under dry and wet conditions were respectively 3065 and 1445 particles per c.c. The percentage size distributions of the particles were almost identical. Other series of observations were made in a narrow place of the coal mine, and similar results were obtained. There can be little doubt that a more copious use of water would have produced much more striking results.

FLUORIDE INGESTION AND BONE CHANGES IN EXPERIMENTAL ANIMALS. LARGENT, E. J., MACHLE, WILLARD, and FERNEAU, IVAN F. *J. Industr. Hyg.*, 1943. Vol. 25, p. 396.

It is known that in man the prolonged absorption of fluorine compounds may cause skeletal changes which can be recognized in roentgenograms, and in some instances the post mortem changes have been studied, but no observations on man have as yet revealed the time-dosage necessary to produce the bone lesions recognizable by means of roentgenograms. In the present investigation rabbits were fed on diets containing fluorine (sodium fluoride and cryolite) to the extent of 12-50 mg. per kg. body weight per day for a period of 16 to 92 days. Macroscopic bone changes developed in every animal so fed, and the fluoride content of the skeleton increased greatly (e.g. from 0.14 mgm. per gram of bone to 1.91 mgm.). However, roentgenographic examination failed to reveal the presence of these early bone changes. The mandible was found to be a frequent site of the gross changes induced by excessive absorption of fluorine, and it is suggested that roentgenographic study of the jaw in man may prove to be a useful means of detecting such changes in an early stage.

FITTING INDUSTRY TO HUMAN NEEDS. LLOYD DAVIES, T. A. *Lancet*, February 12, 1944, p. 223.

Whatever may be the ultimate pattern of industry men and women will always have to work. Men are more important than machines and industry must adapt itself to human needs. As far as physical and mental health are concerned effects of work cannot be divorced from factors in the home or at play. A man is influenced most of all by his sufficiency or lack of food. A proper balance of work, sleep and leisure must be maintained. It is the function of industrial

medicine to study environmental factors affecting persons at their place of work. There is much need for the study of industrial conditions as some occupations are of a deadly character. Assuming the average mortality of males age 20-65 years to be 100 per cent, tin and copper miners have a mortality of 342 per cent, sandblasters 304 per cent, other metalworkers 283 per cent, stevedores 220 per cent, glass-blowers 160 per cent and inn-keepers 155 per cent.

A workman can do little to help himself in industry. He has to accept conditions as he finds them. While employers do not wish workmen to suffer, many hazards arise from indifference, ignorance or prejudice. Protective measures may be shirked for financial or other reasons.

The medical examination of 1831 young persons applying for employment in a factory during the 3 years to May, 1943, showed that 190 had no defects; 1478 had some minor defect such as dental caries or defective vision; 129 had major defects such as heart disease; and 34 were unfit for employment. All these children, since the age of 5, had been supervised by the school medical service, but it is safe to state that the physical condition of juveniles in industry is poor.

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CADMIUM POISONING, ROSS PHILIP. *Brit. med. J.*, February 19, 1944, p. 252.

Cadmium is used in plating; the preparation of certain fusible alloys; the manufacture of specialized solders, dry batteries, paints and metal bearings; and in the car and armament industries. Health hazards occur during the smelting of ores, the preparation and flame-cutting of cadmium alloys, cadmium welding, electroplating and metal spraying. It is not universally realized that finely divided cadmium of a particulate size of 10 microns or less is inflammable, producing in the presence of abundant oxygen dangerous fumes of cadmium oxide, which may be explosive.

As with lead and mercury the main danger lies in the inhalation of fumes of the pure metal and its salts. Free fumes must be prevented in workshops, and if unavoidable there should be sufficient exhaust mechanism and suitable respirators provided for the use of workers. The immediate effects are smarting of the eyes, dry throat, dyspnoea, cough, and a feeling of prostration. Delayed effects appear after 3 hours. The earlier lung distress increases. There is nausea, vomiting and occasionally diarrhoea. There may be rigor and pyrexia with marked prostration. With prolonged exposure pneumonia may supervene, and in fatal cases there may be signs of kidney and liver damage. Except where contact with fumes has been slight and brief the patient must stop work and rest in bed for at least 48 hours. Treatment is symptomatic. These observations are based on analyses of 23

cases of which 7 lost no time, 4 were absent for 1 day, 3 for 6 days, and 1 for 9 days. Of the more seriously affected 1 was away for 4 weeks, 1 for 7 weeks, and a man with pneumonia for 2 months. There was no fatality.

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## VENTILATION AND HEATING: LIGHTING AND SEEING

Industrial Health Research Board Pamphlet No. 1  
(H.M. Stationery Office. 1943. Pp. 20, 3d.)

During the war there has been much evidence that the results of research into industrial health are still not widely enough known and applied. This pamphlet, the first of a new series published by the Industrial Health Research Board, is intended to meet the apparent need for brief and easily understandable accounts, in non-technical language, of the findings of research workers. The pamphlet is intended primarily for laymen, including nurses, personnel and welfare officers, works managers and engineers, and for the workers themselves. However, many members of the medical profession also will find that it provides useful information about the effects of working conditions on the health of the workers.

One striking example of the importance of good ventilation and heating is given by the record of accidents in munition factories in the war of 1914-18. Accidents were at a minimum when the shop temperature was between 65° and 70° F., and increased by as much as 30 per cent when the temperature fell below 55° and by 20 per cent when it rose above 75°. In some factories there is still very inadequate ventilation during the blackout, and suggestions are made for remedying this, and thus diminishing the risk of the spread of infection and feelings of fatigue.

Good general illumination of a factory stimulates production by causing workers to feel more cheerful and energetic, and also permits safe and rapid movement of persons and materials about the factory and makes cleaning easier. Fine work may need up to 100 times more light than the roughest work, and the value is stressed of measuring light by the simple light-meter. In addition, special spectacles may be needed, prescribed by an expert who, of course, must take into consideration the nature of the work as well as the vision of the worker. Much valuable work in preventing eyestrain and assisting in the suitable placing of workers is being done by those factory medical officers who test the vision of all new workers.

This pamphlet may be regarded as an authoritative statement based on the results of scientific investigations over a period of more than twenty years. It should be appreciated by all who are interested in that most vital problem in war-time, the maintenance of good health in industrial workers.



# News of the State

## PERSONALS · COMING EVENTS · MARRIAGES · DEATHS

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### ★ WAR SERVICE ACTIVITIES ★ CHAMPAIGN COUNTY

Major James B. Gillespie, MC, formerly located at Urbana, until recently attached to the office of the Surgeon General, has been assigned as instructor in the Civil Affairs Training School, Yale University.

### COOK COUNTY

Dr. Jean Austin, wife of Lieut. Oliver Austin, who has been missing in action since July 5, will carry on her husband's work. He vanished after taking off on a mercy flight July 5 from Churchill, Canada. His destination was Eskimo Point, 160 miles north, where he hoped to check an epidemic among the Eskimos and forestall danger of its spreading to the United States Army Air Force station near Churchill, where he was post surgeon. Searching parties found the plane wrecked on July 9 on a submerged reef in the Hudson Bay. The pilot's body was found but no trace of Lieutenant Austin. Dr. Jean Austin, who is resident surgeon at Cook County Hospital, Chicago, plans to leave for the isolated Hudson Bay outpost, 1,000 miles north of Winnipeg, where there are no other doctors for a distance of 600 miles, as soon as possible. Drs. Jean and Oliver Austin both graduated from Northwestern University Medical School, Chicago, in 1943 and 1941, respectively. Dr. Oliver Austin entered the service in September 1943.

Lt. Gertrude B. Arnest, chief nurse at the naval hospital at the Great Lakes Naval Training center, has been promoted to the rank of lieutenant commander. Lt. Comdr. Arnest was among 25 nurses who received the promotion. Eight had held that rank previously.

She is a veteran of more than 19 years in the navy nurse corps and was chief nurse at the United States Naval hospital at Pearl Harbor when that base was attacked by the Japanese on Dec. 7, 1941. On Nov. 11, 1942, when the Aiea Heights Naval hospital was dedicated near Pearl

Harbor, Lt. Comdr. Arnest organized the nursing staff and was the hospital's first chief nurse.

*Capt. Jesse Garber* has been awarded the Silver Star for rescuing a wounded man under fire in Italy.

*Dr. D. M. Miller* has been promoted to Captain and has been transferred to surgical service at Regional Hospital, Sheppard Field, Texas. . . *Capt. David Presman* is doing surgical work at Childress Army Air Field in Texas. . . *Capt. Ben Berman*, wrote that he was on his way to the South Pacific theater, after having a thyroidectomy in Hawaii. . . From the Russell Islands *Capt. W. Patejdl* writes that he has been trying to get in touch with Cmdr. Sid Sideman, also stationed there. . . *Capt. Ralph Friedlander* of the 16th Evacuation Hospital is on his way home. . . *Capt. Sam Frankel* has been transferred to an aviation medical dispensary in Italy.

From the 15th Air Force in Italy, *Capt. Milton Uhley* comments that no cases of malaria have yet been reported in his air base, all personnel being forced to take atabrine before getting their mess.

*Lt. Col. Daly*, Chief of Evacuation Hospital 16, writes, "Just put up another hospital and nearly died from the heat. The General sent me to a rest center for a four day rest, where I did nothing but eat, swim and sleep. . . We are in a little valley with mountains all around. . . The whole width of the valley is 1,000 feet and we occupy 800 feet. If it ever rains I shudder to think what will happen to us. . ."

From somewhere in *France*, *Capt. Paolo Ravenna* sends this news. . . Riding through towns just liberated, I was the object of flowers and tomatoes. . . I want to make this clear — they were the first *fresh* tomatoes I had seen in one whole year. . ."

From *England* Lt. Margaret Moscan Gregory, comments, "I've managed to see a few Shakespearean plays. . . I must admit it takes the English to dramatize his work."

From *Guadalcanal* Capt. William Saphir writes that in addition to the responsibilities of medical and pathology service, "I am still playing the organ at our services, but now after almost a year's time it is much more diversion than work. I play Sunday morning at 7:30 at the Catholic Mass, at 9:30 for the Protestants, at 6 P.M. for the Benediction of the Blessed Sacrament, at 6 P.M. Tuesday for the Catholic Novena, at 6 P.M. Thursday for the Song Fest for Protestants. That is my weekly schedule. . ."

## PEORIA COUNTY

Walter King really did his bit on D-Day on the Normandy beach, as he was operating by 6:00 p.m. that very day on the beaches. He worked almost continuously there for eleven days, putting in long hours. Pictures of Walter at work have been reported in a Boston newspaper and also in the August 5th issue of *Collier's*.

Sarge Howard has had his examination by the Navy, but the returns are not in as yet.

Garnett Frye is spending a few days at home.

Irwin Cole, a resident at Methodist Hospital, reported to Carlisle Barracks early in October.

Carl Sibilsy and Bob Sutton had the pleasure of working together for a week in France.

Bill Malcolm finally returned to Peoria for a short leave. He reports plenty of work, a successful appendectomy and he looks very fit.

Bob Hart spent a short leave in Peoria with Dr. Orville Barbour and family. Apparently he is headed for overseas.

Major Howard Miller had the misfortune to fracture his ankle during a softball game at Camp Ellis. This accident caused him to be left behind when his unit left for overseas recently.

Lt. Louis Balcke is now stationed at Bloomington, Illinois, a Navy school program.

Lt. Comdr. Walker of Pekin, has been plenty busy since the invasion of Tarawa; he has moved with the Navy.

Capt. Nelson Wright Jr., of Pekin is in far off New Guinea; he has met Dr. E. Burt.

## SANGAMON COUNTY

The entry into the U. S. Marine Corps of Miss Anna Jean Hampton raises to 127 the total number of employees of the Illinois Department of Public Health who have been released for military duty. It is with deep regret that the Department announces receipt of news that Harold DeHamel has been reported missing in action.

## GRADUATE MEETINGS AND COURSES

The second Post-Graduate Conference sponsored by the Illinois State Medical Society was held at the Faust Hotel, Rockford on Novem-

ber 15th. The meeting opened at noon with a joint luncheon with the Rockford Lions Club. John Neal addressed the group on the Wagner-Murray-Dingell Bill. During the afternoon there were round tables with presentation of cases, lectures and question and answer periods. A popular program on the war and health was given following the dinner.

The following War-Time Graduate Medical Meetings under the auspices of the American Medical Association, American College of Surgeons and the American College of Physicians are scheduled in Illinois for the month of November:

Mayo General Hospital, Galesburg.

Nov. 1—Laboratory Diagnosis and Its Relationship to Treatment.

Nov. 15—Conditions Affecting Glucose Metabolism.

Nov. 29—Orthopedic Problems of General Interest.

Camp Ellis, Illinois.

Nov. 1—Symposium on Organic Neurology.

Nov. 15—Dermatological Diseases.

Nov. 29—Psychiatry; Psychoneurosis; Neurocirculatory Asthenia; Malingering, etc. Chanut Field, Rantoul.

Nov. 1—Chronic Chest Diseases and Disease of the Larynx.

Nov. 15—Head and Spine Injuries.

Nov. 29—Allergic States.

The Chicago Gynecological Society held its 566th regular meeting at the Knickerbocker Hotel, Chicago on November 17th. The program consisted of the presentation of specimens, case reports and papers as follows:

1. Cesarean Section Mortality, William J. Dieckmann, M.D.

Discussion: John Wharton Harris, M.D., Madison, Wisconsin; Roland S. Cron, M.D., Milwaukee, Wis.; Janet Towne, M.D.

2. The Effect of Vitamin "K" Administered During Labor on Infant Mortality, Edith L. Potter, M.D.

Discussion: Armand J. Quick, M.D., Milwaukee, Wisconsin.

3. The Effect of Aquanoë, A Synthetic Vitamin "K", on Blood Prothrombin Time, Herbert E. Schmitz, M.D. and George Baba, M.D.

Discussion: Armand J. Quick, M.D., Milwaukee, Wisconsin; Augusta Webster, M.D.

The CHARLES SUMNER BACON LECTURES for 1944-1945 will be delivered at the University of Illinois, 1853 West Polk Street, Chicago, in Room 221 on December 6 and 7 by

Arthur T. Hertig, M.D., Assistant Professor of Pathology and Obstetrics, Harvard Medical School, Boston.

December 6 at 1:00 P. M. — "The Development of the Early Human Ovum Prior to the First Missed Menstrual Period.

December 7 at 4:00 P.M. — "The Pathogenesis of Hydatidiform Mole with a Clinico-Pathologic Correlation in 200 cases."

William C. Rose, Ph.D. of Urbana gave the 16th Annual William T. Belfield Memorial Lecture before the Chicago Urological Society and the North Central Section of the American Urological Association on October 19th in Chicago. His subject was "The Amino Acid Requirements of Man."

## GENERAL

### BOND COUNTY

William L. Hall of Greenville recently underwent an operation at Wesley Hospital, Chicago for relief from deafness. He withstood the operation very well and is reported to be making a satisfactory recovery.

### COOK COUNTY

Six Chicagoans were among 74 doctors made fellows in the International College of Surgeons at the ninth annual assembly held in Philadelphia in October. They were George Halperin, Paul E. Lawler, Richard H. Lawler, Edward L. Compere, Rollo K. Packard and Manfred Ullman Prescott. Roland I. Pritikin, Chicago, was among 48 admitted to membership in the college and Leonard Albert Barrow and Irving J. Spiegel of Chicago and Paul Hubert Pernworth of Venice, Illinois were among 17 admitted to associate membership.

Frank E. Brawley of Chicago, 30 North Michigan Avenue, was among eight members of the American Academy of Ophthalmology and Otolaryngology given the coveted gold key of the academy's honor society for distinguished work in his field at the recent meeting held in Chicago.

The Educational Committee arranged the following popular lectures to be given at the Museum of Science and Industry of Chicago on Sunday afternoons from 3:00 to 4:00 o'clock. These lectures are sponsored by the Chicago Medical Society.

October 22 — Louis R. Limarzi — "Blood, The Human Life Line"

October 29 — Robert S. Berghoff — "Your Heart, What You Should Know About It"

November 5 — Leo K. Campbell — "Too Fat, Too Thin"

November 12 — Carroll L. Birch — "Bugs Are Worse than Bullets"

November 19 — W. W. Bauer — "Stop Annoying Your Children"

November 26 — Clifford J. Barborka — "Your Diet in Health and Disease"

### DOUGLAS COUNTY

H. I. Conn of Newman has been elected Lieutenant-Governor of Division 16 of Kiwanis International. He has been a member of the Board of Directors and President of his local club.

### DU PAGE COUNTY

Dr. Joseph S. Maxwell, formerly missionary to Ethiopia, has been appointed physician at Wheaton College, it is reported.

### HENRY COUNTY

Henry County Medical Society met in Kewanee on November 16th. I. Davidsohn of Chicago spoke on "Rh-Factor, General Review." There was also a discussion of the "Use and Abuse of Sulfanimides and Penicillin Therapy."

### KANKAKEE COUNTY

The following programs have been arranged for Kankakee County Medical Society:

November 14 — Irvin S. Koll — "Advances in Treatment of Syphilis"

December 12 — Willard Wood — "Arthritis"

### LAKE COUNTY

The October meeting of the Lake County Medical Society was devoted to discussion of the medical care of Old Age Pension Recipients. Dr. S. D. Anderson, chairman of the society's State Aid Committee opened the discussion in which all present took part along with Mrs. Zeta Poff, county chairman and Mrs. Proctor, representing the I.P.A.C. office.

The meeting of November 14th will be devoted to the "Pharmacology of Respiratory Stimulants."

The Lake County Society meets at the Lake County Tuberculosis Sanatorium, Waukegan, at 8:00 p.m. second Tuesday of each month.

### LA SALLE COUNTY

The regular monthly meeting of La Salle County Medical Society was held at the Kaskaskia Hotel, La Salle beginning with a dinner at 6:30. The program was devoted to a discussion of laboratory tests and their relationship to diagnosis. Officers for the coming year were elected.

### MACOUPIN COUNTY

The Macoupin County Medical Society met at the Evangelical Hall in Carlinville for the October 24th meeting. Doctor O. P. J. Falk of St. Louis, Missouri spoke on "Differential Diagnosis of the Heart and Various Conditions Past Middle Life."

### MARION COUNTY

The November 16th meeting of Marion County Medical Society was held at St. Mary's Hospital, Centralia and was devoted to a discussion of Socialized Medicine.

### MORGAN COUNTY

Dr. F. E. McCord, Morgan county health officer, has returned from Ann Arbor, Mich., where he attended a short course on control of tropical diseases. The course was held last week at the University of Michigan, with most of the lectures given by Navy and Marine medical corps personnel.

### OGLE COUNTY

The October 25th meeting of Ogle County Medical Society was held at the Warmolts Clinic, Oregon with Doctor Edward H. Weld of Rockford speaking on "The Acute Abdomen." Officers were elected for the coming year.

### PEORIA COUNTY

Dr. M. H. Kronenberg of Chicago, formerly Chief of the Division of Industrial Hygiene of the Illinois State Department of Health, has been appointed Assistant to the Medical Director at Caterpillar Tractor Co., Peoria, Illinois; and Dr. S. M. Scalzo, on "Caterpillar's" medical staff since 1942, has been advanced to Chief Plant Physician, according to an announcement made by Ralph M. Monk, Director of Industrial Relations and Dr. H. A. Vonachen, Medical Director.

Dr. Kronenberg graduated from the University of Illinois (1924) following which he served a two year internship at Cook County Hospital, engaged in private practice for a short time, was medical director for the Chicago Brass Manufacturers Association, serving part of that time, also, as a member of the Chicago Municipal Tuberculosis Sanitarium Staff. Since 1935 Dr. Kronenberg has served on the faculty of the University of Illinois as Associate Professor of Industrial Medicine.

Dr. Scalzo is a graduate of the University of Louisville. He served as an intern at Receiving Hospital in Detroit following which he spent two years in general practice in southern Illinois.

### SANGAMON COUNTY

The Illinois Department of Public Health announces the following important personnel changes:

Replacing Dr. E. K. Steinkopff, who has returned to sanatorium work in another state, Dr. A. William Burke has been serving the Illinois Department of Public Health since April 1, 1944, as Acting Chief of the Division of Tuberculosis Control, in addition to carrying on his duties as the Department's District Health Superintendent for the 5-county area designated as District 10.

Effective June 19, 1944, Dr. Henrietta Herbolzheimer has been appointed Acting Chief of the Department's Division of Maternal and Child Hygiene, succeeding Dr. Hugo V. Hullerman who has joined the staff of the American Hospital Association.

As of July 1, Dr. Herman M. Soloway, who has been in charge of the Department's venereal disease control program since 1938, is re-entering private practice and will be with the Department on a part-time basis only, serving as venereal disease control officer in the Division of Industrial Hygiene. Dr. George G. Taylor has been appointed Chief of the Department's Division of Venereal Disease Control. Dr. Taylor has been a member of the staff of this Division for the last two years, and for six years previously he was in charge of the venereal disease section in the Chicago Health Department.

### WARREN COUNTY

Charles P. Blair of Monmouth led a round table and gave a paper on Fracture Surgery at the Fifth Annual Meeting of the Ambulatory Fracture Association at the Palmer House on October 14th.

### WILL-GRUNDY COUNTY

The following programs were scheduled for Will-Grundy County Medical Society for the month of November. Meetings are held at the Louis Joliet Hotel, Joliet beginning with a luncheon at 12:15. All doctors in nearby counties are cordially invited to attend.

November 3 — W. J. Bryan — "Pulmonary Tuberculosis"

November 10 — Charles Morgan McKenna — "Kidney Surgery"

November 17 — Meyer A. Perlstein — "Convulsions in Children"

November 24 — Harry A. Gussin — "The Rectum as a Focus of Infection"

E. C. Kelly of Peoria, E. P. Coleman of Canton, and Jean McArthur, Secretary of the Educational Committee have been invited to serve on the Health Advisory Committee to the Illinois Congress of Parents and Teachers.

## DEATHS

JESSE CURTIS AKINS, Forrester; Barnes Medical College, St. Louis, Mo., 1899. Practiced medicine in Secor, Ill., until 1902 when he came to Forrester. Was coroner of Ogle County for many years. Died October 4, 1944, aged 75.

JOHN BERNARD BROWN, Paxton; Illinois Medical College, 1902. Had practiced medicine in Clarence and Paxton areas for 42 years. Died following a heart ailment September 12, 1944, aged 68.

ROBERT NEWTON CANADAY, Dupon; St. Louis University School of Medicine, 1902. Was physician for the Missouri Pacific Railroad for many years. Died September 18, 1944 at the age of 65 years.

LT. JOHN A. CLAPP, Chicago; University of Illinois College of Medicine, 1942. Was killed in action in the U. S. Navy in the South Pacific on July 21, 1944. He was 30 years old.

CHARLES HICKS CRAIN, retired, Evanston, Illinois Medical College, 1901. Had practiced medicine in Salt Lake City for three years and then came to Chicago where he practiced in ophthalmology. Died at the Presbyterian Home in Evanston September 29, 1944, aged 89.

RALPH C. CUPLER, retired, Chicago; University of Illinois College of Physicians and Surgeons, 1901. Had been a staff surgeon in St. Anthony's Hospital and professor of surgical pathology at Loyola University. Died October 24, 1944, at the age of 69.

THOMAS HENRY GAFNEY, retired, Chicago; University of Illinois College of Physicians and Surgeons, 1891. Had practiced medicine in Chicago more than 40 years. Died October 21, 1944, aged 77.

J. FENNELL MCKEE, Chicago; University of Toronto, Canada, 1894, Royal College of Physicians and Surgeons, England, 1902. Died late in September, 1944, aged 76.

WARREN WESLEY MURFIN, Patoka; Rush Medical College, 1884. "Fifty Year Club" of Illinois State Medical Society, Jan. 14, 1938 and emeritus membership Jan. 5, 1941. Died in October, 1944, aged 82.

WALTER W. OVERFIELD, Forrester; Rush Medical College, 1890. Had practiced medicine in Forrester over 50 years. Died October 3, 1944, at the age of 76.

ANDREW JOHN OZELKA, Lisle; Loyola University School of Medicine, 1934. Had practiced medicine at Lisle for past 7 years. Died on September 29, 1944, of a cerebral hemorrhage the result of a malignant sarcoma of the right femur with cerebral metastases. He was 34 years of age.

BOYD C. REMBE, practicing physician in Illinois for 25 years; Chicago Medical College and Loyola University. Died September 29, 1944, aged 54.

VICTOR L. SCHRAGER, Chicago; Rush Medical College, 1907. Associate professor of surgery at Northwestern University Medical School; attending surgeon at Mt. Sinai, Cook County, Garfield Park and Walther Memorial Hospitals. Died of a heart attack October 15, 1944 at the age of 66 years.

C. HOWARD SEARLE, Glencoe; Rush Medical College, 1898. Was chairman of G. D. Searle & Co. pharmaceutical manufacturers. Died in Evanston Hospital October 22, 1944 at the age of 71.

SAMUEL SHER, Chicago; University of Illinois College of Physicians and Surgeons, 1907. On staff of County hospital and staff surgeon at Wesley, Grant and Edgewater Hospitals. For many years had conducted a clinic for the poor at the Post Graduate Hospital. Died of a cerebral hemorrhage October 25, 1944, at the age of 59.

GUY N. STONEMETZ, Fairfield; Washington University School of Medicine, 1885. Was member of the "Fifty Year Club" of the Illinois State Medical Society. Died September 22nd, 1944, aged 82.

WILLIAM MCHENRY SWICKARD, Charleston; Rush Medical College, 1926. During World War I he held a commission in the R.O.T.C. and for many years attended camp every summer. In 1927 he went to Charleston, Ill. and practiced medicine. Was in ill health for several years before his death on October 15, 1944. He was 46 years old.

COLMORE H. TATE, Chicago; Chicago College of Medicine and Surgery, 1913. Died in his home October 5, 1944 at the age of 56.

PIETER VAN DER LEEK, Brookport, Ill.; the Hahne-mann Medical College and Hospital, Chicago 1922. Died in Riverside Hospital, Paducah, Ky., July 1, aged 56, of coronary thrombosis.

CHARLES F. WEIR, Chicago; Northwestern University Medical School, 1894. Died of a heart attack in his office September 27, 1944 at the age of 73.

W. ROBERT WILLIAMS, Riverside; Chicago College of Medicine and Surgery, 1916. Cardiologist and president of executive staff of West Suburban Hospital; on staff of Municipal Tuberculosis Sanitarium. Had practiced medicine in Chicago and Oak Park for 28 years. Died September 27, 1944 at the age of 59.

CLARENCE LEON WILSON, Chicago; University of Illinois College of Medicine, Chicago, 1920. Was field consultant in Division of Maternal and Child Hygiene of the State of Illinois Department of Public Health; senior attending obstetrician to the Provident hospital. Died August 28, aged 49 of carcinoma.

# P. R. N.

The Jocular Jingles of C. G. F.

by

*Charles G. Farnum M. D.  
Peoria, Ill.*

## WORK

Where could I look for interest more than in my  
daily work?

'Tis vastly more intriguing than the things that we  
call play;

My work, in contemplation,

Provides such fascination,

That I can fold my hand and sit and look at it all  
day.

## THE DETAIL MAN

There is an ancient and venerable wheeze  
That says it is good for a dog to have a certain num-  
ber of fleas

To remind him of his proper place.

That is probably also true of various groups of the  
human race.

At any rate every doctor has his assortment of pests  
Which he detests,

And these

Are as numerous as the dog's fleas.

There are folks of all descriptions

Taking magazine subscriptions;

All sorts of beggars

And some boot-leggers;

Book agents galore

Whom we abhor;

Some work the old game

Of giving us a set of books with our name

In gold letters on the title page, free,

If we will pay the binding fee;

Solicitors of funds for everything from finding chil-  
dren homes

To rehabilitating the catacombs,

Or to underwrite

The building of a church or putting on a dog fight;

College students come to get our views on euthanasia

Or the prevalence of some blood dyscrasia;

Salesmen offer us everything from farms, razor blades  
and socks,

To bonds and stocks;

We are asked to disburse

Jobs for the practical nurse;

Representatives of that and committees of this, of  
every kind and degree,

Et cetera, et ceterumque.

We are not annoyed by all these nuisances of various  
kind,

It is simply a part of the daily grind.

But when sufficiently harrassed even the worm will  
turn,

And there is one pest that so causes our wrath to  
burn,

That we would like to tie a can

On a certain type of brazen, insolent, impudent, cock-  
sure Detail Man —

The officious,

Avaricious,

Super-punctilious,

Ultra-supercilious

Detail Man

And all his tongue-wagging, arrogant clan.

With fantastic imagination,

Scant information,

And a soul that is scorbutic,

He presumes to dissertate to us on things therapeutic.

In a manner grandiloquent,

He gives vent

To a speech that sounds like a parrot with an over-  
dose of hyocyamus.

The poor ignoramus!

This concerns his own products in particular

Although we are suspicious that said products are a  
bit pedicular;

In fact when his products are especially inferior

His manner is likely to be even more superior.

Piffle! prattle! Raucous rattle!

His information on the treatment of disease

Is equal to that of an Edam cheese.

Garulity, volubility, verbosity —

A vociferous monstrosity.

His loquacity

Is equaled only by his tenacity.

Bibble-babble, Gobble-gabble.

How we long to dial some other station

And tune out this Exhibit A of degeneration.

Then, when it occurs to us to ask him a simple in-  
telligent question as to his product his embarrass-  
ment is ample,

And he hastily departs leaving us a sample.

For this driveling functionary

I would gladly write an obituary

Right now is when!

Amen!

## SO LAUGH

When your hair is all gray,

With a bald spot midway,

And you walk with a slow halting step;

When your hearing's but fair

And bi-focals you wear,

You're a bit in the red as to pep.

When your girth tends to spread

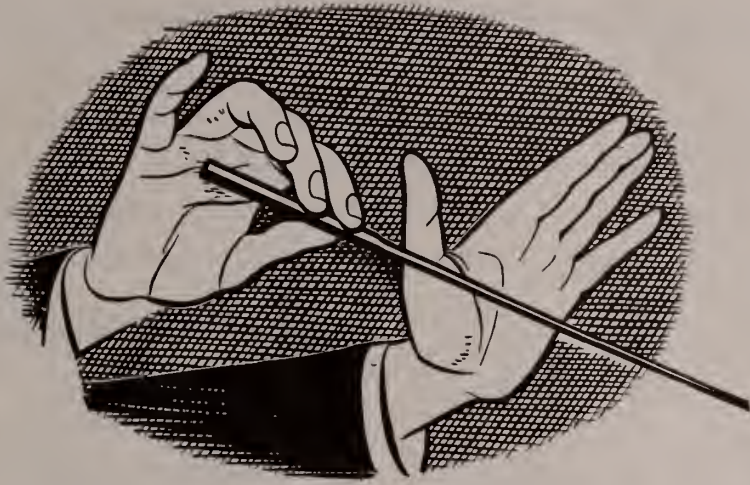
And your face is all red,

And your speed is divided in half;

When your nose tends to leak

And you talk with a squeak —

You are old, so admit it and laugh.



## *Moderation in all things*

And particularly in the treatment of constipation, where harsh and brutal purgation has long given way before rational physiological methods. Today, 'AGAROL'\* Emulsion symbolizes all that is desirable in deft, effortless relief, and in the return to more normal bowel function. By providing soft bulk and lubrication, by retaining moisture in the stool and by mildly stimulating peristalsis, 'AGAROL' Emulsion accomplishes its specific task without leaving the patient in a debilitated and "wrung-out" condition. As such, it represents the very essence of moderation and effectiveness in therapy.

## **'AGAROL'**

Emulsion of mineral oil and an agar-gel with phenolphthalein.

\*Trademark Reg. U. S. Pat. Off.

WILLIAM R. WARNER & CO., INC., 113 WEST 18TH STREET, NEW YORK 11, N. Y.

# *A Rational, Systemic*

**E**FFECTIVE treatment of chronic arthritis perforce must aim at correction of systemic as well as joint involvements.

Darthron, the fruit of years of clinical observation, is compounded especially for this purpose. In a single capsule it supplies massive dosage vitamin D plus adequate amounts of the other vitamins needed for optimal improvement in chronic arthritis.

The use of high-dosage vitamin D in arthritis is well-established.<sup>1, 2, 3, 4, 5</sup> When this mode of therapy was first recommended for the treatment of arthritis, many of the other vitamins were still unknown. The more recent studies emphatically stress their importance in anti-arthritic management.<sup>6, 7, 8</sup>

## SYSTEMIC INVOLVEMENT

Loss of weight  
Weakness  
Fatigability  
Anemia  
Neuritis  
Gastrointestinal disturbances  
Liver dysfunction  
Impaired carbohydrate metabolism  
Early arteriosclerosis

- 1 Reed, C. T.; Struck, H. C., and Steck, T. E.: Vitamin D. Chemistry, Physiology, Pharmacology, Pathology, Experimental and Clinical Investigation, Chicago, University of Chicago Press, 1939, p. 310.
- 2 Livingston, S. K.: Vitamin D and Fever Therapy in Chronic Arthritis, Arch. Phys. Therapy 17:704 (Nov.) 1936.
- 3 Farley, R. T.: Management of Arthritis, Illinois M. J. 71:74 (Jan.) 1937.
- 4 Farley, R. T.; Spierling, H. F., and Kraines, S. H.: Five-Year Study of Arthritic Patients; Laboratory and Clinical Observations, Indust. Med. 10:341 (Aug.) 1941.
- 5 Snyder, R. G., and Squires, W. H.: A Preliminary Report on Activated Ergosterol;

Form of High Dosage Vitamin D in Treatment of Chronic Arthritis, New York State J. Med. 40:708 (May 1) 1940.

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- 8 Levinthal, D. H.; Logan, C. E.; Kohn, K. H., and Fishbein, W. I.: Practical Management of Arthritis, Medical and Orthopedic, Indust. Med. 13:377 (May) 1944.



# Approach to Arthritis

Each capsule of Darthron presents vitamin D, 50,000 U.S.P. units; vitamin A, 5000 U.S.P. units; ascorbic acid, 50 mg.; thiamine hydrochloride, 2 mg.; riboflavin, 1 mg.; pyridoxine hydrochloride, 0.1 mg.; calcium pantothenate, 0.333 mg.; niacinamide, 10 mg.; mixed natural tocopherols, 3.4 mg.

## RATIONALE OF DARTHRON FORMULA

**Vitamin A** increases the tolerance for massive dosage of vitamin D.

**Vitamin A** deficiency in the blood of rheumatic patients has been reported.

**Ascorbic acid (Vitamin C)** is essential for the normal development of intercellular material of connective tissue. Deficiency produces weakness, hemorrhage due to decreased cohesion of vascular endothelium, osteoporosis of bone, delayed wound healing.

**Thiamine** is essential for the physiologic activity of all tissues because of its role in carbohydrate metabolism. Deficiency causes weakness, loss of weight, fatigue, neuritis, gastrointestinal disturbances and impaired carbohydrate metabolism.

**Riboflavin** combines with phosphoric acid to form an oxidation enzyme essential for carbohydrate metabolism.

**Pyridoxine** plays a role in the utilization of unsaturated fatty acids and in hemopoiesis. It is effective in combating hypochromic ane-

mia, nervousness, weakness, difficulty in walking, and insomnia.

**Calcium Pantothenate** has been reported to be essential in maintaining the integrity of the central nervous system and the endocrine glands.

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**Mixed Natural Tocopherols (Vitamin E)** have been found useful in neuromuscular disorders and primary fibrositis.

Many of these conditions are commonly encountered in the chronic arthritic.

Physicians are invited to send for comprehensive literature and samples.



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# DARTHRON

*for the Arthritic*



## *Rich in the Essentials* MOST FREQUENTLY DEFICIENT

Studies of malnourished patients usually reveal that the faulty diets chosen by these persons are usually lacking in foods rich in vitamins, minerals, and proteins. Such diets are generally high in carbohydrate content, and contain foods low in essential nutrients.

The balanced composition of Ovaltine is ideally suited to the correction of malnutritional states due to faulty dietaries. Its abundant content of minerals, complete proteins,

and vitamins supply those nutrients most frequently lacking. Appetite is usually no problem when Ovaltine is prescribed. The delicious taste of this food drink delights the palates of children and adults, and adequate quantities are consumed daily without coaxing or persuasion. Three glassfuls of Ovaltine per day correct the nutritional deficiencies of virtually any dietary, bringing the intake of essential nutrients to at least adequate levels.

THE WANDER COMPANY, 360 NORTH MICHIGAN AVENUE, CHICAGO 1, ILLINOIS



## *Ovaltine*

Three daily servings (1½ oz.) of Ovaltine provide:

	Dry Ovaltine	Ovaltine with milk*		Dry Ovaltine	Ovaltine with milk*
PROTEIN . . . .	6.0 Gm.	31.2 Gm.	VITAMIN A . . . .	1500 I.U.	2953 I.U.
CARBOHYDRATE . .	30.0 Gm.	62.43 Gm.	VITAMIN D . . . .	405 I.U.	480 I.U.
FAT . . . . .	2.8 Gm.	29.34 Gm.	THIAMINE . . . .	.9 mg.	1.296 mg.
CALCIUM . . . . .	.25 Gm.	1.104 Gm.	RIBOFLAVIN . . . .	.25 mg.	1.278 mg.
PHOSPHORUS . . . .	.25 Gm.	.903 Gm.	NIACIN . . . . .	5.0 mg.	7.0 mg.
IRON . . . . .	10.5 mg.	11.94 mg.	COPPER . . . . .	.5 mg.	.5 mg.

\*Each serving made with 8 oz. of milk; based on average reported values for milk.



## **crowds and coryza!**

*THE COMMON COLD* . . . it *mixes* with the crowds, and it *meddles* to an extent which has meant as many as 23,000,000 persons ill with colds during a single week.<sup>1</sup> A review of the "sick list" in American shops and offices reveals other startling figures on the anti-production menace of the common cold. For instance, a reliable survey<sup>2</sup> shows that, in one winter month, thousands of workers were affected, with a resulting loss of 1,600,000 man-days of labor. In summary: Three out of four are attacked in winter . . . one out of twenty, even in midsummer. Immunologic responses to the so-called cold virus are relatively transient. Prophylactic indications, therefore, are directed toward active immunization against bacteria associated with the more severe types of common cold.

'VACAGEN' ORAL COLD VACCINE TABLETS are designed to produce active immunity against ten, specific, pathogenic bacteria believed responsible for the more severe manifestations of colds, grippe, and similar acute infections of the upper respiratory tract.

Supplied in vials of 20, and in bottles of 100, 500 and 1000. Sharp & Dohme, Philadelphia 1, Pa.

1. Ending February 24, 1942. 2. November 24-December 20, 1941. American Institute of Public Opinion.

**'VACAGEN'** *Oral Cold Vaccine Tablets*

## *In the Management of Severe Third-Degree Burns*

much has been learned through the unfortunate occurrence of the Coconut Grove fire at Boston. The numerous reports in the medical press emphasize the need for large amounts of dietary protein of adequate biologic value, given as early as possible.\* Meat is one of man's main sources of protein that can be eaten with relish several times daily in goodly quantities; its proteins are of highest quality, and it contributes to the satisfaction of the greatly increased vitamin requirements as well.

\*"All the patients with ten per cent of surface area, or more, involved in third-degree burns became serious nutritional problems. . . . All patients were started on high protein, high vitamin diets. . . . This diet contained 140 Gm. of protein." (Clowes, G. H. A., Jr.; Lund, C. C., and Levenson, S. M.: *The Surface Treatment of Burns*, Ann. Surg. 118:761 [Nov.] 1943.)

" . . . at least from 200 to 300 grams of protein is needed for replacement alone. One must give the patient as much food as he can take . . . give him a good protein, one that contains all of the essential amino acids." (Elman, R.: *Physiologic Problems of Burns*, J. Missouri M. A. 41:1 [Jan.] 1944.)



The Seal of Acceptance denotes that the nutritional statements made in this advertisement are acceptable to the Council on Foods and Nutrition of the American Medical Association.

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## Procaine Hydrochloride and Epinephrine

The combination of the prompt and powerful local anesthetic action of procaine hydrochloride with epinephrine is very effective. With CHEPLIN'S PROCAINE HYDROCHLORIDE and

EPINEPHRINE the period of anesthesia is prolonged through retarded absorption of the anesthetic. It also causes blanching of the operative area, thus giving the surgeon a clear field.

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"ACCEPTED  
STANDARDS AT  
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**"MY DOCTOR'S FOUND A  
WAY TO GO  
ALL-OUT . . .  
WITHOUT FEELING  
ALL IN!"**

**"MY** DOCTOR certainly hated figuring and re-figuring proportions of milk, carbohydrates, water for feeding formulas.

"Then he looked into S-M-A. And I was on S-M-A—as soon as he saw what a dependable way it was to shortcut that old arithmetic. In only two minutes he explained to my Mummy how to mix and feed my S-M-A.

*"He knows that in S-M-A I'm getting an infant food that closely resembles breast milk in digestibility and nutritional completeness.*

"Since my doctor put me on S-M-A I'm happy, strong 'n' growin'. Mummy's happy 'cause I'm happy, and feeding's easier for her. And Doctor's happy—'cause he can lick his extra wartime work without feeling all in.

"If you ask me—**EVERYBODY'S** happy if it's an S-M-A baby!"

. . .

A nutritional product of the S.M.A. Corporation,  
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S-M-A is derived from tuberculin-tested cows' milk, the fat of which is replaced by animal and vegetable fats, including biologically tested cod liver oil, with milk sugar and potassium chloride added, altogether forming an antirachitic food. When diluted according to directions, S-M-A is essentially similar to human milk in percentages of protein, fat, carbohydrate, ash in chemical constants of fat and physical properties.

*Everybody's* **HAPPY IF IT'S AN** **SMA** **BABY!**

REG. U. S. PAT. OFF.

# Not Lances, but a

# *Lancet*



**H**E's a man of battle. He doesn't charge in with lance atilt—or its modern equivalent the bayonet, the Tommy gun, the Garand—but he's fighting for life, all the same. The lives of other men... and constantly at the risk of his own in those advanced dressing stations and field hospitals. Bombs lash down... shells burst... but he stays at his post.

Once in a while he has a moment to himself. A moment of relaxation... time for a cigarette... time for a Camel. With men in all the services, Camel is the favorite according to actual sales records.



COSTLIER  
TOBACCOS

# Camels

Reprint available on cigarette research—Archives of Otolaryngology, March, 1943, pp. 404-410. Camel Cigarettes, Medical Relations Division. One Pershing Square, New York 17, N. Y.

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# *Liquid Bulk*



**F**ACED with the problem of cleaning their enormous stockyards, the Romans constructed a magnificent channel which effectively drained the waste-laden stables.

Similarly, in the intestinal tract, there is no more efficient method of flushing away waste than by the use of *liquid bulk*—as formed by Sal Hepatica plus water.

Clinical and laboratory tests prove that:

★ in the isolated loop of a dog's ileum, a laxative solution of Sal Hepatica increased the liquid bulk by 34 per cent in one hour.

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★ Sal Hepatica's liquid bulk helps stimulate bowel muscles, maintain a proper water balance. And the salines of Sal Hepatica help relieve gastric acidity, help promote the flow of bile.

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**TO HELP FLUSH THE INTESTINAL TRACT**

**Sal Hepatica**  **Liquid Bulk!**

**SUPPLIES**

# VASODILATATION in Arterial Hypertension

	ACTION BEGINS	MAXIMUM EFFECT	DURATION OF ACTION
AMYL NITRITE	1 MINUTE	3 MINUTES	7 MINUTES
NITROGLYCERIN	2 MINUTES	8 MINUTES	30 MINUTES
SODIUM NITRITE	10 MINUTES	25 MINUTES	60 MINUTES
ERYTHROL TETRANITRATE	15 MINUTES	32 MINUTES	<b>3 to 4 hours</b>

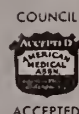
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Erythrol Tetranitrate may be prescribed over a prolonged period with sustained effect. By dilating the peripheral arterioles, it tends to decrease not only the stress of excessive pressure on the arterial walls, but also to relieve the burden on the heart.

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TETRANITRATE  
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For Prolonged  
Vasodilatation  
in Hypertension



LITERATURE ON REQUEST

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**EVERYTHING\***



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*Most Vitamin B deficiencies* are multiple ...and therefore require the *complete B* complex for thoroughly effective results.

*Cereals, liver, and yeast* are the richest, most important source of vitamin B complex. But not all the lesser known B factors are present in each of these 3 sources.

*Elixir Bepadin, I.V. C., however, combines all 3 sources*—rice bran extract, liver con-

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*Added...* are thiamine, hydrochloride, riboflavin, pyridoxine hydrochloride, and calcium pantothenate—in an appetizing and delicious sherry wine vehicle.

In 16 oz. bottles. A product of The International Vitamin Corporation, "The House of Vitamins," New York, Dallas, Chicago, Los Angeles.

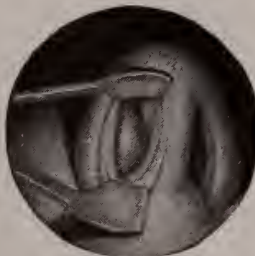
**IVC ELIXIR BEPADIN**

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## ***A better means of nasal medication***

### **BEFORE TREATMENT**

Inferior and middle turbinates are highly engorged and in contact with the septum. The airway is completely blocked.



### **9 MINUTES AFTER TREATMENT**

Maximum shrinkage has been obtained with 2 inhalations from Benzedrine Inhaler. The turbinates are contracted. The airway is open:



Butler and Ivy state that—for administering vasoconstrictive drugs—inhalers and sprays are preferable to nasal drops, and are—in most cases—"the better means of nasal medication," because: (1) "... the drug reaches the nasal mucosa in more diffuse form ..."; (2) "... the mucosa is never severely ischemic at any one point, but the effect is spread throughout the nasal cavity ..."; (3) even when prolonged medication is required, there is "... far less pathologic change than that resulting from the use of nasal drops."

Arch. Otolaryng., 39:109-123, 1944.



Each Benzedrine Inhaler is packed with racemic amphetamine, S. K. F., 200 mg.; oil of lavender, 60 mg.; and menthol, 10 mg.

Smith, Kline & French Laboratories, Philadelphia, Pa.

# **Benzedrine Inhaler**

**Rapid, Complete and Prolonged Shrinkage**

*Widely**Endorsed*

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Its potent hydrocholeretic action has made Decholin (the original dehydrocholic acid) a widely accepted addition to the surgeon's armamentarium.

Administered preoperatively, Decholin (oral) or Decholin sodium (intravenous) produces a copious outpouring of thin, free-flowing liver-bile, secreted under increased pressure, which causes the bile ducts and gallbladder to stand out prominently, facilitating identification and manipulation during surgery.

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When the common duct is drained to the outside, Decholin assures free drainage, aiding in the removal of clots, inspissated bile, and small stones overlooked at surgery.

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*Physicians are invited to send for a copy of the 4th (condensed) edition of the brochure "Biliary Tract Disturbances"*

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## Book Reviews

**FUNDAMENTALS OF PSYCHIATRY:** By Edward A. Strecker, M.D., Sc.D., F.A.C.P., Professor of Psychiatry and Chairman of the Department Undergraduate School of Medicine, University of Pennsylvania; Psychiatrist to the Pennsylvania Hospital; Attending Psychiatrist, Psychopathic Division, Philadelphia General Hospital; Consultant to the Bureau of Medicine and Surgery, United States Navy; Consultant to the Secretary of War. A.A.F., Second Edition. 15 Illustrations. J. B. Lippincott Company, Philadelphia and London. Price \$3.00.

This is the second edition of a book which appeared two years ago and which unquestionably was quite popular with many physicians who had taken the time to read it. The author states that there is much more to offer through psychiatric knowledge and treatment today than there was only a few years ago. With present day therapeutic agents and principles, a longer interval between attacks in many of these conditions has been noted.

Another factor for the new edition has resulted from the war and the realization that following the first world war it was a well known fact that one-seventh of all casualties were neuro-psychiatric. With this new knowledge available, greater efforts have been made during the present war to eliminate much of the cost to the government for the care of veterans disabled through neuropsychiatric disturbances.

The present role of psychosomatic medicine is likewise given much consideration in the book, and it is the desire of the author to give the physician in private practice more information on that as well as the many other subjects where some psychiatric knowledge is necessary to get at the basic cause of disease and to properly apply the correct therapy.

In addition to those subjects normally expected to be found in a treatise on the subject of psychiatry, the author has added special chapters on "The Psychiatry of War," "War Neuroses," and "The Nurse and the Psychiatric Patient," all of which are intensely interesting to the reader.

This is a relatively small volume in contrast with the usual books on the subject of Psychiatry, and it is one which can be read easily and is highly entertaining. The book should be a welcome addition to the usual medical library.

**THE ANALYSIS AND INTERPRETATION OF SYMPTOMS:** Edited by Eyril M. MacBryde, M.D. The J. B. Lippincott Company, Philadelphia and London. 1944. Price \$4.00.

In his introduction the editor of this volume deplores the fact that patients coming to the physician are unable to announce the cause of their symptoms and without effort on the part of the practitioner tell the disease which is present. He impresses upon the reader

(Continued on page 54)

# CIBA PHARMACEUTICAL PRODUCTS, INC.

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MEMORANDUM FROM: Medical Director  
TO: Advertising Manager

In view of recent lay publicity on the value of male hormone therapy in cardiovascular conditions and the male period of involution, many men may be approaching physicians asking for treatment, and while therapy may be justified in a certain percentage of cases, you surely know, only the physician can so determine.

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### BOOK REVIEWS (Continued)

the importance of a careful history for all patients seen so that the physician may properly evaluate the many symptoms related. Following the clinical examinations, the physician then can determine the cause of the disturbance and supply the proper therapy.

It is generally known that in many diseases there are usually found definite complexes or syndromes which usually are sufficient for the examiner to tell quickly the cause of the trouble. Unfortunately this is not true with other diseases which necessitate first, a carefully taken history, then the proper type of physical examination and special tests to find the cause.

Although not intended to cover all ailments, the book is made up of ten common symptoms each written by a different author. These subjects are Nervousness and Fatigue, Fever, Headache — Mechanisms and Differential Diagnosis, Thoracic Pain, The Differential Diagnosis of the Conditions which Produce Cough and Hemoptysis, Abdominal Pain, Hematemesis and Melena, Jaundice, Joint Pain and Obesity. Each of these subjects is discussed in much detail and a great deal of information concerning the various conditions which cause the symptoms and the methods of evaluating them to permit the proper diagnosis, is made available.

The book is highly interesting and should meet with the approval of its readers.

1945 DAILY LOG for Physicians. Colwell Publishing Company, Champaign, Illinois. Price \$6.00 Postpaid.

Each year the Daily Log for Physicians adds various forms and record sheets to enable the busy physician to keep his office records in a simple and comprehensive manner. All a doctor or his assistant need do is complete the various records as the months pass, then for the year income tax essentials otherwise so laboriously figured, and other important financial information is easily located and available for use.

The many physicians throughout the country who have used the Daily Log will welcome the new 1945 edition, available now so that it will be ready for January 1, 1945 entries.

A number of office forms are also available through the Colwell Publishing Company for use in a physician's office.

Poor records cost time, and the physician today operates on a minimum of leisure. The Daily Log is a simple solution to an ever present office problem, and a solution welcomed by many busy practitioners.

METASTASES, Medical and Surgical; By Malford W. Thewlis, M.D., Attending Specialist in General Medicine, United States Public Health Hospitals, New York City; Attending Physician, South County Hospital, Wakefield, Rhode Island, etc., Foreword by Hubert A. Royster, A.B., M.D., F.A.C.S., Honorary Chief Surgical Service, Rex Hospital; Chief of Staff, St. Agnes Hospital; Consulting Surgeon, Dix Hill State Hospital; Fellow, American Board of Surgery, Raleigh. With 13 Illustrations. Charlotte

(Continued on page 58)



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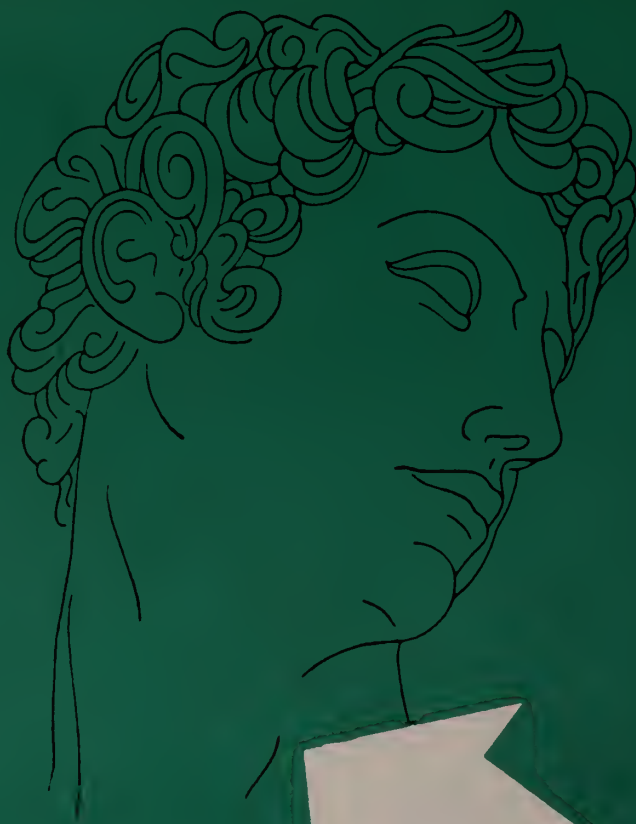
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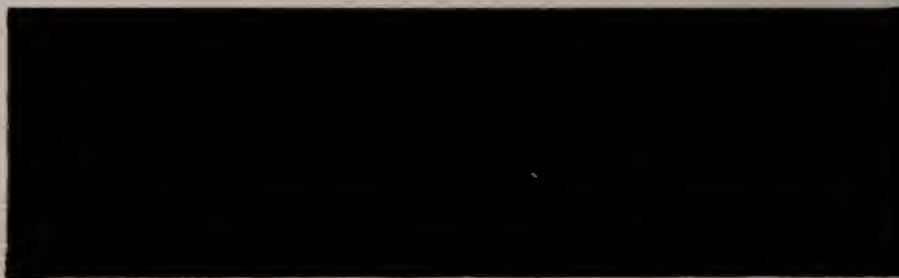
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### BOOK REVIEWS (Continued)

Medical Press, Charlotte, North Carolina, 1944. Price \$5.00.

It is quite obvious that the preparation of a monographic work on the subject of metastases, medical and surgical, must necessarily require an immense amount of research and study. A list of the organs and structures in which diseases may originate are given followed by the possible directions in which they metastasize, although the author states that "metastasis does not follow a definite course."

The book is divided into six sections, the first on general considerations of metastases; the second on neoplasms; the third discussing infections; the fourth infectious disease; the fifth miscellany, and the sixth section on regional metastases.

There is contained in this book, much valuable information for the surgeon as well as the internist. It should be of much value in the determination of embolism, infarction, infection and metastasis of tumors. The author has arranged his material so that we have first, the type or site of the primary lesion, source of metastases, and the location of the metastases, the more common metastatic conditions being italicized.

Although the student who will devote some time in the study of the book will be benefited greatly, it is likewise of unquestionable value to the internist, the surgeon, the radiologist, or even the general practitioner who first is called to diagnose and perhaps treat the condition.

---

**THE PRACTICE OF MEDICINE:** By Jonathan Campbell Meakins, M.D., LL.D., Brigadier, Deputy Director General of Medical Services, Royal Canadian Army Medical Corps. Professor of Medicine and Director of Department of Medicine, McGill University; etc., Fourth Edition with 517 Illustrations Including 48 in Color. The C. V. Mosby Company, St. Louis. 1944. Price \$10.00.

This is the fourth edition of "The Practice of Medicine" which has appeared in a period of only eight years, the last edition having been published in 1940. The author refers to many new things in medicine which have been developed during the past four years, some of which are especially applicable to war times. The book is not intended for the specialist, but primarily for the student and the practitioner who finds problems for which he seeks information.

Much attention is given to preventive medicine and the many factors in the life of the individual which may have some bearing on the present condition and account for the symptoms presented. Diet, exercise, recreation, housing and work are all of equal importance in this connection. Especially in war time, the subject of psychosomatic medicine is considered more in detail than in previous volumes. In addition to the many diseases which have been discussed in much detail in previous volumes, more attention has been given to diseases of the circulatory system, the hematopoietic sys-

(Continued on page 60)

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<sup>1</sup> Diseases of the Skin: Sutton & Sutton, 1939, p. 99.

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### BOOK REVIEWS (Continued)

tem, ductless glands, and diseases of the nervous system. Much up to the minute information is given which will be of great interest to the readers, for it is rare indeed that so much information of value can be found in a single volume.

The 517 illustrations add materially to the value of the book. The 48 in color are of especial interest. In the chapter on "Diseases of the Hematopoietic System" there are a number of these color plates showing stained cells in blood and bone marrow in normal specimens as well as depicting those found in various types of blood dyscrasias, which will be of much interest to many readers.

The Practice of Medicine will be of much interest to the physician in whose library it will be found, and it will be used often in his work.

**THE YEAR BOOK OF INDUSTRIAL AND ORTHOPEDIC SURGERY:** Edited by Charles F. Painter, M.D., Orthopedic Surgeon to the Massachusetts Women's Hospital and Beth Israel Hospital, Boston. The Year Book Publishers, Incorporated. 304 South Dearborn Street, Chicago. Price \$3.00.

For many years the Practical Medical Year Books have been intensely popular with many busy practi-

tioners as an opportunity is given to review abstracts of many articles appearing during the year which but few are privileged to read in their entirety.

With the millions now working in war plants or in industrial plants allied in some way or other with our war effort, more physicians are doing industrial medicine and surgery than ever before. Likewise many new occupational diseases have been encountered adding materially to the new interest in this type of professional work. With every conceivable type of bone and joint injuries encountered in military medical work, and with the perfecting of methods of treating and transporting casualties, many new subjects in orthopedic surgery are developed.

Recent chemotherapeutic developments which have aided materially in the treatment of bone infections, along with adequate surgical treatment, are included in the Year Book of Industrial and Orthopedic Surgery.

The book is naturally divided into two parts, the first dealing with Orthopedic Surgery, and the second with Industrial Medicine and Surgery. The first part is devoted to the many problems in orthopedic work giving information on developments of the past year in relation especially to the management of the many types of deformities, injuries and bone infections.

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lems of organization of the professional services in connection with industrial plants, absenteeism, fatigue, respiratory diseases, cardiac conditions, and specific hazards.

The Year Book of Industrial and Orthopedic Surgery should be of much value to many busy practitioners, whether doing this type of surgery or not, as much information is given which will interest anyone in practice. The man in general practice will unquestionably find many things which will be of interest within its covers.

**GLOBAL EPIDEMIOLOGY: A Geography of Disease and Sanitation:** By James Stevens Simmons, B.S., M.D., Ph.D., Dr. P.H., Sc.D. (Hon.), Brig. General, United States Army; Chief, Preventive Medicine Service, Office of the Surgeon General, United States Army; etc., And Tom F. Whyne, A.B., M.D. Lt. Col., M.C., A.U.S.; and Gaylord West Anderson, A.B., M.D., Dr. P.H., Lt. Col., M.D., A.U.S., and Harold Maclachlan Horack, B.S., M.D., Major, M.D., A.U.S.; and collaborators. Volume One, India and the Far East, The Pacific Area. J. B. Lippincott Company, Philadelphia and London 1944.

For the first time information concerning medical health and sanitary conditions of geographic areas

presented in one book, "Global Epidemiology." In this first volume information relative to these important subjects pertaining to India, the Far East, and the Pacific Area are presented. The material is based on surveys made for the Medical Department of the United States Army, and the material is largely of military interest at this moment.

It is stated that in subsequent volumes similar information will be given relative to Africa, Europe, the Near East and the Western Hemisphere. It is highly important that these studies were made, and the information is of inestimable value to the medical departments of the Army and Navy, and of course, will be utilized extensively by their respective sanitary corps, and in the Preventive Medicine Service of the Offices of the Surgeons General.

In considering the pertinent data concerning medical health and sanitary conditions in the various countries covered in the volume, information is presented relative to geography and climate, public health, (divided into health services, water supplies, sewage disposal, insects and animals, food and dairy products, miscellaneous problems of sanitation, poisonous plants, etc.). Then the medical facilities are discussed with information concerning hospitals, number of beds, equipment, etc., medical personnel in the individual countries, medi-

*(Continued on page 64)*

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\*The Relative In Vitro Activity of Certain Antiseptics in Aqueous Solution—Robert N. Nye, Boston, Journal of A.M.A., Jan. 23, 1937, Vol. 108, pp. 280-7.

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## BOOK REVIEWS (Continued)

cal institutions, nursing facilities, and other information of inestimable value in evaluating health and sanitary conditions.

Diseases are then considered in much detail. First, diseases spread through the intestinal tract, the respiratory tract, then those spread by contact; diseases spread by arthropods; nutritional diseases, and miscellaneous conditions. Much information is given relative to the prevalence of venereal diseases in the

various countries, along with information on the tropical diseases which are more or less prevalent.

The book is certainly the last word on the subjects covered, and the data has been procured through reliable sources in each instance. Although primarily intended to help maintain the highest standards of health on the part of our own troops in these countries, the book should be of much value to every physician and to others interested in the many health problems encountered in other parts of the world. Anyone will be intensely interested in the mass of information found in this single volume.

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## Books Received

The following books have been received for reviewing, and are herewith acknowledged. This listing should be considered as a sufficient return for the courtesy of the sender. Books that appear to be of unusual interest will be reviewed as space permits each month. Readers desiring additional information relative to books listed, may write the Editor who will gladly furnish same promptly.

MANUAL OF UROLOGY; by R. M. LeComte, M.D., F.A.C.S., Professor of Urology, Georgetown Uni-

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versity Medical Department, Member of the American Urological Association. Third Edition. A William Wood Book. The Williams & Wilkins Company, Baltimore, 1944. Price \$4.00.

THE MEDICAL CLINICS OF NORTH AMERICA. Boston Number. W. B. Saunders Company. Philadelphia and London. 1944.

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THE DIAGNOSIS AND TREATMENT OF ACUTE MEDICAL DISORDERS: By Francis D. Murphy, M.D., F.A.C.P., Professor and Head of the Department of Medicine Marquette University School of Medicine and Clinical Director of the Milwaukee County General Hospital and Emergency Unit, Milwaukee, Wisconsin. F. A. Davis Company, Publishers, 1944.

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doctors. 764 pages with 15 illustrations. W. B. Saunders Company, 1944. Philadelphia and London. Price \$6.00.

PRIMER OF SCLEROTHERAPY. Injection Treatment: By H. I. Biegeleisen, M.D. Forben Press, New York, 1944. Price \$2.00.

A TEXTBOOK OF PATHOLOGY: By Robert Allan Moore, Edward Mallinckrodt Professor of Pathology, Washington University School of Medicine, St. Louis, Mo. 1338 pages with 513 illustrations, 34 in colors. W. B. Saunders Company, 1944. Philadelphia and London. Price \$10.00.

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 A physical disharmony that would  
 probably fuss us  
 Is pertussis.  
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 It is associated with some ribs that  
 are broken.  
 The discordance  
 Between St. Vitus dance  
 And inflammatory rheumatism  
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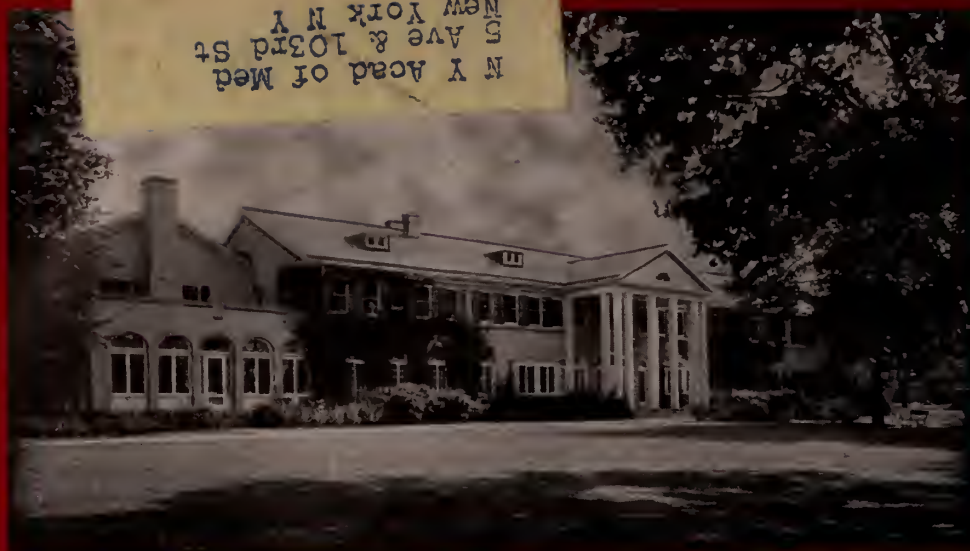
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*Medical Journal*

VOL. 86  NO. 6

*December, 1944*

In This Issue

The Outlet Contraction with  
Especial Emphasis on the  
Typical Funnel Pelvis

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(See page 33 for Table of Contents)

OFFICIAL JOURNAL OF THE ILLINOIS STATE MEDICAL SOCIETY



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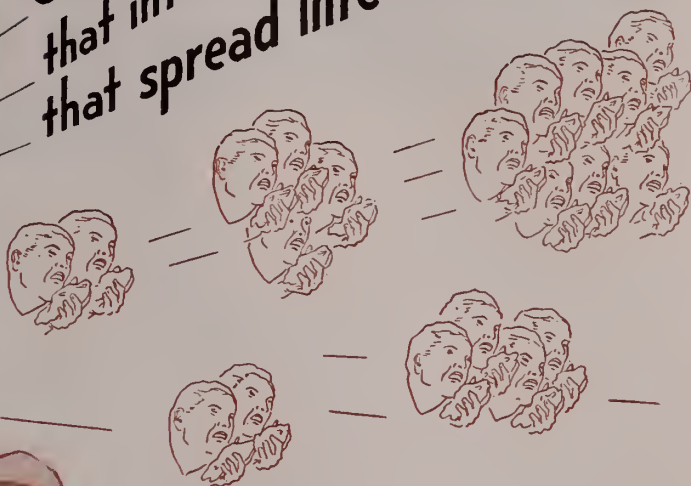


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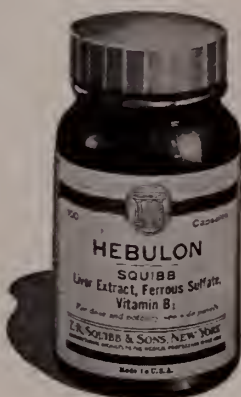
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How It Shortens the Course of Infection  
and Helps Avert Sequelae to Colds

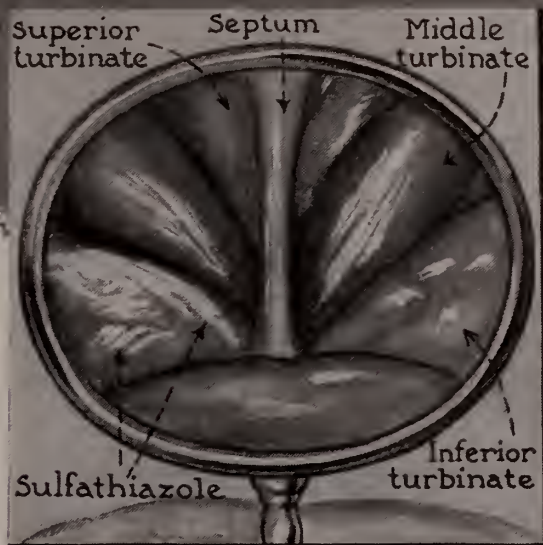
**T**HESE drawings—from photographs presented as a scientific exhibit at the 1944 Meeting of the American Academy of Ophthalmology and Otolaryngology—demonstrate why Paredrine-Sulfathiazole Suspension is so strikingly effective in nasal and sinus infections. The choanae of patient T. D.—with subacute pansinusitis—are illustrated.

The dramatic success of Paredrine-Sulfathiazole Suspension in aborting colds and averting complications is largely due to its prolonged bacteriostatic action. When the Suspension is administered on retiring, for example, sulfathiazole can often be observed on infected mucosa the next morning—conclusive evidence that bacteriostasis has persisted all night long.

The fundamental reason for this prolonged bacteriostatic action is the fact that Paredrine-Sulfathiazole Suspension—not a solution, but *a suspension* of free sulfathiazole—covers the nasal mucosa with a fine, even frosting of sulfathiazole, which does not quickly wash away. Yet the Suspension does not cake or clump, and does not interfere with normal ciliary action.

**SMITH, KLINE & FRENCH LABORATORIES**  
**VASOCONSTRICTOR-SULFONAMIDE**

# Suspension—

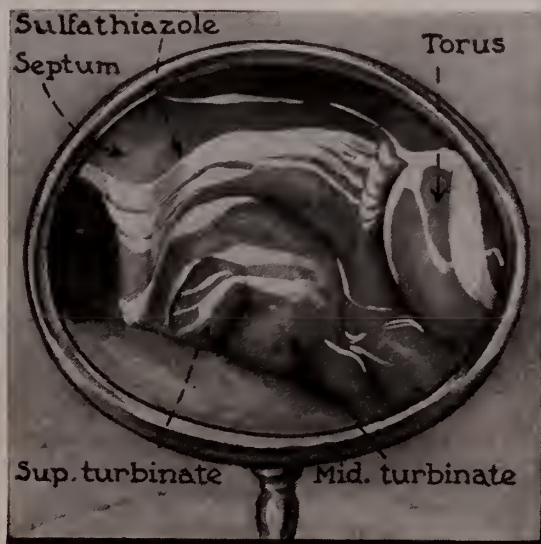
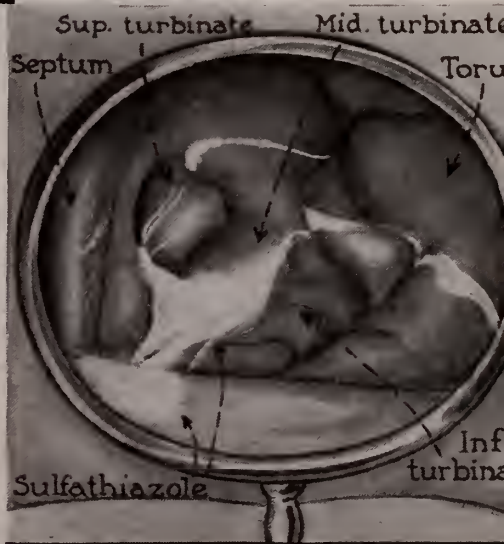


## ◀ 30 MINUTES AFTER INSTILLATION

The Suspension has been swept onto infected areas, where ciliary action is impaired. The sulfathiazole remains on infected areas and keeps producing a bacteriostatic solution.

## 45 MINUTES AFTER INSTILLATION ▶

Sulfathiazole mixed with pus is passing over the orifice of the Eustachian tube. Should pus enter the middle ear, the sulfathiazole will minimize the likelihood of otitis media.



## ◀ 50 MINUTES AFTER INSTILLATION

Sulfathiazole is streaming beneath the turbinates where it mixes with pus draining from the sinuses. Thus, the Suspension helps prevent the incidence of nasopharyngitis, pharyngitis, etc.



# IN THE

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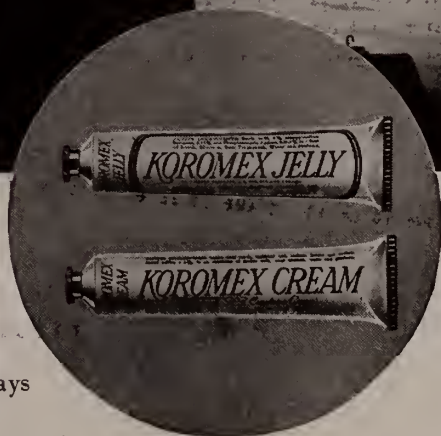
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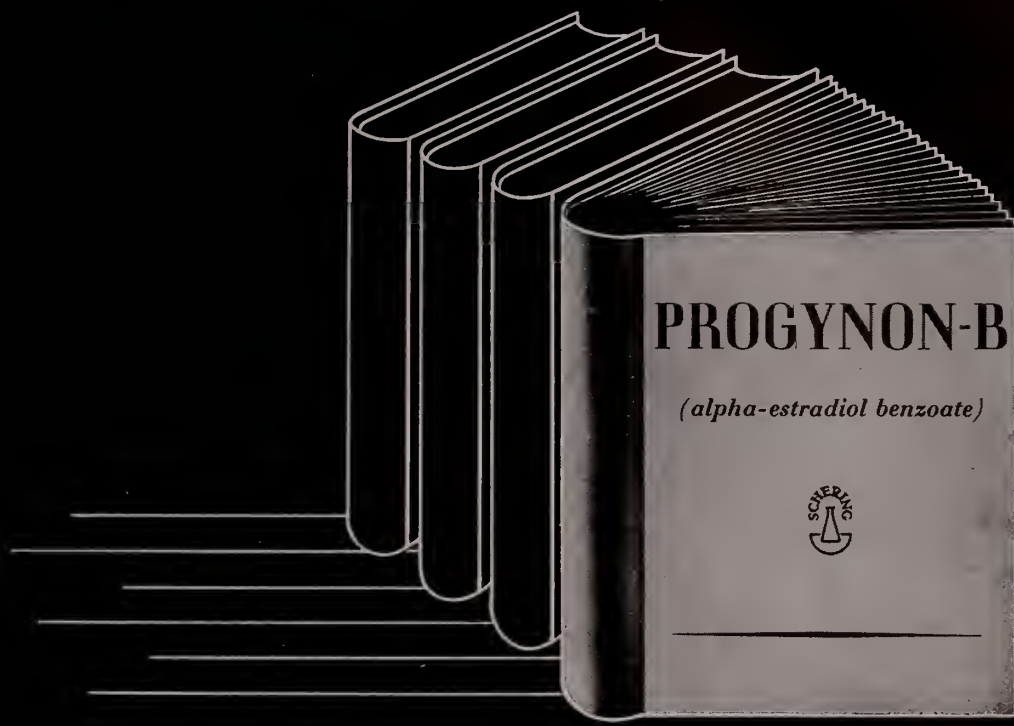
individual British and American scientists, the Rockefeller Foundation, the National Research Council, the U. S. Department of Agriculture, the War Production Board, the American Pharmaceutical Industry, and the Medical Services of the British and American Armed Forces, has never before been equaled.

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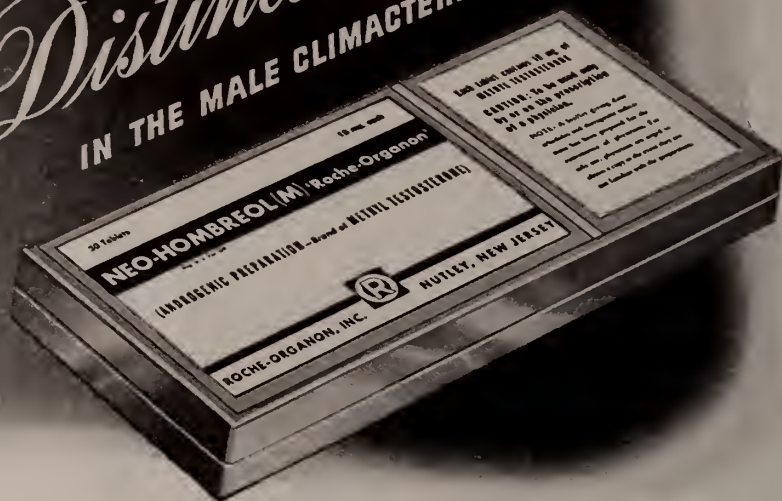
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(1) Editorial, *J.A.M.A.*, 126:300, 1944; (2) Council of Pharmacy and Chemistry, *J.A.M.A.*, 125:788, 1944

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AQUEOUS, soothing base, readily miscible with nasal secretions.

5

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(This salute is published by the makers of Camel, the cigarette that is proud to be a favorite with men who wear the caduceus, as well as men in all the other services — according to actual sales records.)

# the local problem in

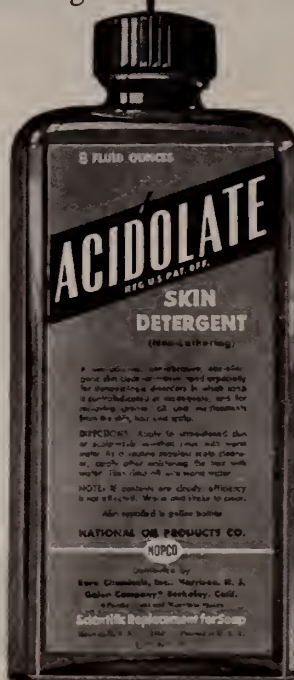
The local problem in acne vulgaris is to remove the excessive sebum with the least amount of irritation. This cannot be accomplished with ordinary soap and water as easily as with sulfated oils. Swartz and Blank report gratifying results when Acidolate, the modern sulfated-oil detergent, is utilized in place of soap to secure and maintain skin cleanliness (*J.A.M.A.*, 125: p. 30-31, May 6, 1944).

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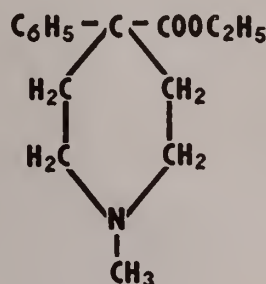
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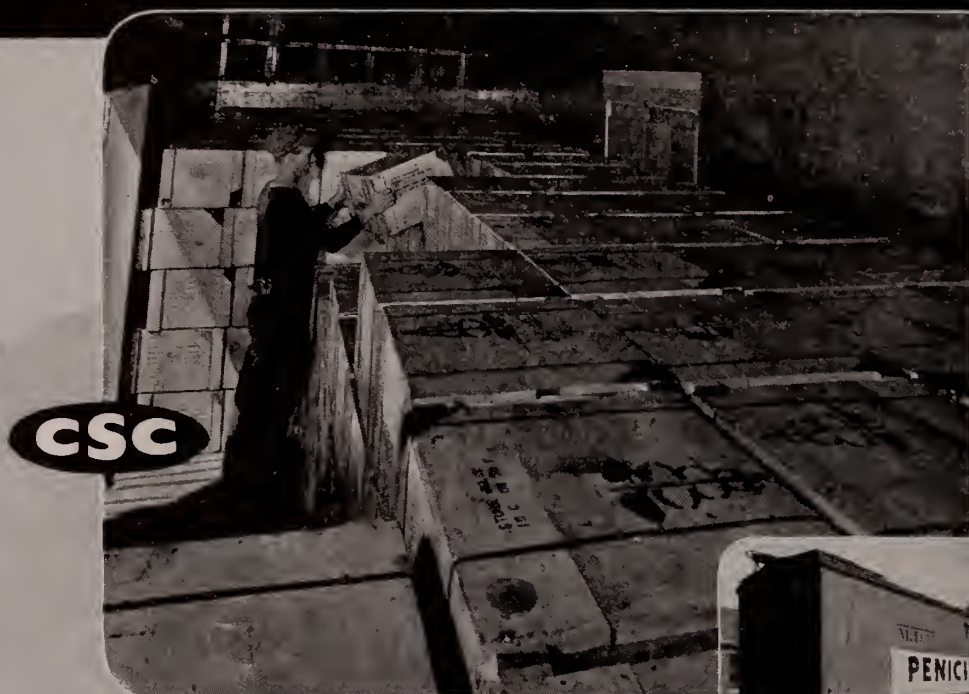
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being loaded with Penicillin-C.S.C.

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# *The Illinois Medical Journal*

*December, 1944*

VOL. 86, NO. 6

Official Journal of the Illinois State Medical Society

EDITOR — Harold M. Camp. EDITORIAL BOARD — James H. Hutton, Chairman, Frederick H. Falls, Josiah J. Moore, Edwin M. Miller, Chauncey C. Maher, Harry S. Gradle, Harry Culver, Walter Stevenson, Raymond W. McNealy.

## Editorials

### WE ARE THINKING OF YOU

We are again approaching another Christmas Season, and before this appears in print the third year of the participation of the United States in World War II will have been finished. Naturally all of those remaining at home carrying on in their respective fields of endeavor, think of you who have been carrying on at the fighting fronts. Unlike the situation in previous wars, American soldiers and sailors are fighting for liberty and humanity in all quarters of this globe, and whether you, the medical officers who are working long hours each day to save human lives are in the European, Asiatic, far Northern areas, or on any of the high seas, we at home send our greetings and best wishes.

You medical officers are not working a 40 or 48 hour week, and your schedule does not call for time and a half, or double time for additional hours of service each week, yet you have done a job which has been a marvel of the age, through the use of modern therapy, surgical technic and transportation of the wounded quickly by air to base hospitals, after the primary care has been given near the place where the casualty developed. Your work has indeed been outstanding and whether you realize it or not, the American people as a whole are fully cognizant of your achievements, and they will never be forgotten.

All medical societies throughout the country are developing plans whereby they may be of

the greatest possible service to you upon your return to civilian practice, and those of you who desire to return to your former locations, will find both your patients and confreres anxious to greet you and aid you in every way possible to become rehabilitated from military to civilian activities.

The Illinois Medical Journal has endeavored to give you in each issue, news of the state which we believe has been of interest to you, and in the selection of papers which have been published during the year which is about to end, we have given much consideration to your own interests. As rapidly as we received reports of change of address we have made the changes accordingly on our mailing lists, and have sent the Journal each month to every member of the Illinois State Medical Society who is in any branch of service. If any of you are not receiving your Journal, it is through no fault of ours, and we are anxious to get your correct address, and also a notice of any change of address as promptly as possible. We are also happy to receive letters from any of you when you have the time to write to us.

Likewise we are always anxious to receive papers from you which are approved by the proper Bureau of your branch of service, and we shall publish same as early as possible after they have been received.

Once more therefore, the Illinois State Medical Society and the Illinois Medical Journal ex-

tends to each of you the Season's Greetings and we wish to assure you that we will all be happy indeed, when we can welcome you home after the job you are now on, is completed.

### PNEUMONIA TREATMENT

At a recent meeting of the Council of the Illinois State Medical Society, Dr. Roland R. Cross, Director of the Department of Public Health, presented for Council consideration a plan which entailed various changes in his Department.

One phase of his presentation dealt with the free distribution of anti-pneumococcic serum by the State Department of Public Health. The need for such serum has been almost entirely eliminated by the development of new sulfonamide compounds. The Department will, in the future, provide sulfathiazole and sulfadiazine for the treatment of pneumonia cases upon receipt of a request. Careful studies have proven that the treatment of pneumonia cases with the sulfonamides has as low a mortality rate as cases in which serum therapy has been used.

The Council believed that all physicians

should be informed of the contemplated change in Department routine, and requested that a statement be prepared for distribution to the medical profession in Illinois. The following statement was furnished us by Dr. Jerome J. Sievers, Chief of Division of Communicable Diseases and Epidemiology of the Department of Public Health of Illinois. We will ask that you take special note of the fact that the Department will supply sulfathiazole and sulfadiazine from the Division of Communicable Diseases, from all full-time local health departments and from all approved pneumonia typing laboratories. It is believed that with an early diagnosis of pneumonia and early, as well as proper use of the sulfonamides, the mortality from pneumonia in Illinois will continue to be reduced in the coming years.

### PNEUMONIA SERUM

"Effective January 1, 1945, the Illinois Department of Public Health will discontinue the free distribution of anti-pneumococcic serum.

"This action is being taken with the approval of the Pneumonia Advisory Council of the Department and the Council of the Illinois State Medical Society.

"At the time free distribution of anti-pneumococcic

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serum was begun by the Illinois Department of Public Health in 1937, no other specific form of therapy was available and the wide use of serum resulted in a marked decline in the case-fatality rate of pneumonia. Since then, however, the discovery and introduction of new sulfonamide compounds such as sulfathiazole and sulfadiazine has provided a simpler, and more economical therapeutic agent for this disease. Carefully controlled studies have shown that the treatment of pneumonia with sulfonamide drugs is equal, if not superior, to treatment with serum. The availability of penicillin for civilian use has provided an additional highly potent method of treatment where indicated.

"Sulfathiazole and Sulfadiazine for the treatment of pneumonia may be had on request from the Division of Communicable Diseases, all full-time local health departments, and all approved pneumonia typing laboratories."

### THE ILLINOIS BLOOD PLASMA PLAN

Several months ago Dr. Roland R. Cross, Director, Illinois Department of Public Health announced through this Journal, the Illinois Blood Plasma Program which had been developed in order that a constant stock of plasma could be available in hospitals throughout the state, so that physicians wishing to give plasma to any patient regardless of ability to pay for same could have it readily available. Hospitals may apply for participation in the program, and they agree to abide by the rules of the plan. The State Health Department to start the plan will place, free of cost, a supply of plasma in the hospital sufficient to meet the expected demands of the institution. The hospital agrees to replace within one week, any of the plasma withdrawn to meet local needs. The replacement may be made in one of three ways.

First, the hospital may obtain plasma needed for replacement from any laboratory licensed by the National Institute of Health.

Second, the hospital may obtain blood from local donors sufficient to yield plasma equivalent to the amount used. This blood is to be shipped prepaid to the Samuel Deutsch Serum Center in Chicago where it will be processed at a cost to the hospital of \$7.50 per unit, and the plasma is returned to the hospital at no additional cost other than that for its transportation.

Third, the hospital may procure from local donors an amount of blood to yield twice the amount of plasma needed for replacement. Through this plan, the hospital assumes no expense for the processing, as the Serum Center

retains one half of the plasma for compensation.

Participating hospitals are required to purchase the necessary shipping and blood transportation equipment and to set up the machinery for the local operation of the plan. The State Department of Public Health provides the initial stock of plasma and detailed instructions as to administration technic, storage, preparation of administration equipment, qualification of blood donors and methods of blood collection. Consultation service will be provided if desired.

There are several advantages of this plan, such as it decentralizes the work and cost of making plasma available at all times in every part of the state; it provides a self perpetuating stock of plasma in every participating hospital; it establishes a strong motive to the relatives and friends of a patient who may need plasma to voluntarily donate blood for replacement, and the cost of having plasma available for all patients, is reduced to a minimum. There are quite a number of hospitals which have been approved and are now using the plan most satisfactorily, while others no doubt will adopt it and meet the requirements within a short time. Plasma is being used more often today than ever before and it is one of the most important additions to therapy in many years, its use not merely being indicated in the treatment of intense shock, following loss of blood, and during and following serious operations. In many cases its use is indicated before the more serious manifestations of the disease or injury have developed. Plasma today is used extensively in obstetrical practice, in many medical and surgical conditions, and following trauma. Likewise in the early treatment of burns it is of the utmost importance. Millions of units of plasma have been sent for use in caring for the armed forces on all fronts, and quite recently in addition to the supplying of plasma, hundreds of pints of whole blood are being transported by air each day, to our fighting forces especially in the European theater of war.

It seems quite logical to believe that within a relatively short period of time, every well equipped hospital in Illinois will have the Illinois Blood Plasma Program in operation, and use it freely in the effort to reduce mortality and morbidity rates throughout the state. The Illinois Director and his associates are indeed to be

congratulated for taking this step to make plasma available for the benefit of any patient regardless of their economic status.

### TUMOR DIAGNOSTIC SERVICES AVAILABLE

R. V. BROKAW, M.D.

A tumor diagnostic service to be conducted under the joint auspices of the University of Illinois College of Medicine and the Division of Cancer Control of the State Department of Public Health has recently been inaugurated at the Research and Educational Hospital, Chicago.

The operation of this service under these joint auspices provides for an augmentation of the facilities offered by the Tumor Clinic of the Medical College which has been conducted for some time under the direct supervision of Danely P. Slaughter, M.D., Assistant Professor of Surgery. The activities of the Division of Cancer Control of the State Health Department are under the direction of Raymond V. Brokaw, M.D., Chief.

These facilities are available to all practicing physicians throughout the State as a consultation service in the care of their suspected cancer cases. Patients who can afford to pay will be diagnosed and returned to their referring physician with recommendations for treatment.

Medically indigent patients who are approved by the Social Welfare Department of the Hospital will be treated without charge in accordance with the customary policy.

Tumor clinic sessions are held on Tuesdays, Wednesdays and Fridays from 2 to 5 P.M. Ambulant patients will be admitted to the clinic on any of the days mentioned; but cases requiring hospital care will be received only by previous arrangement, and to the extent of available facilities.

Additional tumor diagnostic services now operated under the auspices of the Division of Cancer Control are located at St. Anthony's Hospital, Rockford; Burnham City Hospital, Champaign; and Memorial Hospital, Springfield.

At all of the above named services specimens of suspected tumor tissue from medically indigent patients which may be submitted by physicians from any part of the State are ac-

cepted for microscopic examinations and diagnosis without charge. Suitable containers for mailing such specimens are available upon request.

Further information regarding these facilities may be obtained by addressing the Division of Cancer Control 505 South 5th Street, Champaign, or the director of any of the services named.

### COMES THE NIGHT AND THE DAWN (Senility or Human Exodus)

I have witnessed the following dramatic picture of sudden and surly death, time after time, with minor changes in the setting. It seems to me humanity should meet its supreme test more serenely and more philosophically.

Thirty years devoted to the study of illness, disease and death, and the past twenty years to an analytical survey of cardiology, particularly in progressively older people, leaves me with the definite impression that the older the human race grows the more querulous and if you will, more selfish and unappreciative we humans are as we approach Death.

After all if we *drift* as infants and children, and *fight* in our prime, and again *drift* in our senility, through eight or nine decades, why should we not be reconciled to discomfiture, ailments, impairments of function, and the Grand Adventure, Death Itself?

Robert S. Berghoff, M.D.

President-Elect Illinois State Medical Society

There he sat in his chair in the window, the old, the very old man of ninety-one winters. He was decrepit, emaciated, bent, ossified, his old shoulders supported with pillows. His chair faced the glaring noonday sun which threw into bold relief his peaked face with skin like parchment and furrowed as a crocodile's. A wisp of straggling white hair lopped over bleary and teary eyes, the last leaf on a withered tree. Seventy pounds of dehydrated flesh clinging to a gaunt frame! I had appraised him slowly and methodically and it occurred to me how dulled his senses must be not to detect my presence. Now I approached him diffidently, for the parted lips which methodically retrieved a loose and wobbly upper denture also served, when in repose, to create a sullen, sneering and uninviting picture. However, gathering courage, and in a loud and cheerful strain, I hailed him. "Good day to you, Sir, and a good day it is."

After an interminable pause in a querulous and cackling falsetto came his rejoinder. "The

sun is setting and it is growing dark, but then for a long time it's been dark. Would that *my* sun would set. Why can't I die? It's been a good day, eh? A good day for what? The days and nights are as one to me. Why can't I die?"

I mused, "So this is God's handiwork, this is Man!" And as I glanced at this human derelict, all of his faculties waning, I sensed it all. Not merely a hulk of dying higher form of animal life, with eyes, ears, hands, extremities, heart, soul and brain all through—gone—irretrievably gone, but a very old human being who used and thoroughly enjoyed his faculties over and beyond his allotted span. Now he was utterly weary and alone. Unfortunately, unlike the lower forms of animal life, he possessed a brain, arteriosclerotic it is true, yet functioning nevertheless, and because of it he was cursed with the inclination "analytical and deductive."

"A good day?" he groaned. "'Tis night! Or have my eyes completely closed? Black, dark as night, and so it has been for me this long, long time. I am a blind, weary old man. Why can't I die?"

And then again the import of his meaning struck me, the complete and futile picture. Truly he was a senile, decrepit old man, with ripened and hardened cataracts blinding him, and his tear-dimmed eyes were droplets of water, the overflow of stenosed tear ducts, not tears the product of sentiment, for sentiment demands a soft heart, and his seemed one of stone. My own heart surged within me as I began: "You ungrateful, unappreciative old man! Why can't you die? Why won't your sun set? You are blind — all is night to you? Ah, but listen to me! What glories have your eyes beheld? And by what intrinsic right did you merit them? Or have you forgotten your wide range of vision in the long life gone by? Shall I recount them for you? The light of love in your dear mother's countenance as she held you to her bosom. The look of adoration from your bride as you placed the ring upon her finger. Your babies — one — two — three — four — and their pride when they brought their childish possessions to your knee. And then your grandchildren, your own flesh and blood reincarnated. And in between, the years of your maturity — your active, virile life — years of accomplishment, years of travel. In the past you were

wont to recount them to me — the wondrous sights your eyes beheld: sunrise on Mount Everest, the grandeur of the Taj Mahal, Europe, Rome, the Vatican, the Galleries. All these and more have your eyes feasted upon. Count your blessings, Sir, I beg of you!"

"Why can't I die? You taunt me with your whispering nonsense about days gone by. Or *are* you whispering? Shouting more than likely so that my deaf old ears may be cajoled into accepting an occasional overtone. Yes, that's it — a blind and deaf old man. Why can't I die?"

Again I say to you, "Shame, shame on you, old man, for in one breath forgetting and ignoring all the wonders your ears have brought you and demanding perpetuity. Have you not heard infants coo and children prattle? You have listened to the spicy admixture of words of praise, of gratitude and perhaps of condemnation. The glories of the operas, the enchantment of symphonies and the stir of martial music — all these have been yours to enjoy throughout a long lifetime. Count your blessings, Sir!"

"Stop! I hold no brief for the past. My years were long and full — aye, friendly too. It's the present, the everlasting *Now*, I hate. Blind, deaf, and my voice once strong and vibrant now a quivering female falsetto. Why can't I die?"

"Not quite so bitter are you, Sir? Perhaps because you remember the voice you were blessed with. A voice that thanked and soothed and prayed. A voice that commanded men — full of power, determination, authority, and yet tender in love and consolation. A voice that rang out a deep baritone and swayed hearts and souls. It was yours for years and years and you used it well — but not forever. Count your blessings, Sir!"

The stern old jaw relaxed and the furrowed brow became a bit smoother, but just for an instant, and then the sinister mask reappeared.

"Blind, deaf, the voice of a hag, and my memory — where is it? Amazing how crystal clear my childhood is and my youth and my long and active life; but where is the recent past, where is *Now*? Why can't I remember yesterday, last week, last month, last year and the year before? All a haze, a maze, a per-

plexing, disturbing, annoying *Now*. It would be just as well if I were dead! Nature is Cruel!"

"Once again, Sir, I say 'Count your blessings.' Your premise 'Nature is Cruel' is wrong. Nature is kind and generous — amazingly so in the aphasia inflicted upon senility. Look at it this way, Sir. Consider your long and eventful life as a single day. Let your childhood resemble the dawn; your youth, a calm and peaceful morning; your maturity, high noon; and your later years, the waning of the day blending imperceptibly with eventide, just as your senility has gradually and slowly descended upon you. With that comparison in mind reflect upon that paradoxical change Nature has wrought with your memory and why. She allows you a crystal clear and vivid mental picture of your childhood with its innocent, care-free, homely joys, to play and toy with at your will. With no effort, even at your advanced age, you can unwind the spool of time and, leisurely or quickly, follow your steps to school, at play or where you will. Not a detail escapes that queer, intriguing old memory of yours. With no additional effort you can carry on into your youth and into your maturity. Your youth with its joys, its loves, its battles, its triumphs, disappointments and its minor sorrows. Your maturity, too, remains an open book. You see yourself again rearing a family of stout and brave sons and comely, good daughters, the mothers of your grandchildren. You note again how staunch and strong and well you have built and fashioned this earthly house of yours, and it brings you inner satisfaction. You breathe a sigh of contentment and you have the conviction that you could not build it better, even now fortified with all your additional experience. And now, Sir, your day's drawing to a close, the sun dips behind some gathering clouds, shadows fall, evening comes, and Nature with her magic wand throws a veil over your memory and blots out your yesterday — your *Now* — and you complain? I'll give you, Sir, what Nature refuses — a hurried glimpse at your recent and faded past. Your last few years have been kind — kind to you and to those you love. You are alone only because you wished it so. Sons and daughters, grandchildren, friends whom you befriended — all yearn to enfold you in their em-

brace. To one and all you are a father, grandfather, friend, sage and philosopher, one set aside to be loved and respected, one whose passing will leave an irreparable void."

By Jove, I've done it! Here comes his smile at last, a big, broad smile of utter peace and contentment. It lights that creased old face and makes it good and kind and ecstatic. But wait! That smile is stiff, it's frozen — it's his last. Comes the Dawn — His Dawn! He is dead!

## SECOND ANNUAL CLINICAL CONFERENCE SPONSORED BY CHICAGO MEDICAL SOCIETY

The tremendous success of the First Clinical Conference has served as a mandate to the Chicago Medical Society for the annual continuation of this type of program. Acting in accord, the Council of the Society has approved and is sponsoring the Second Annual Clinical Conference, February 27, 28 and March 1 at the Palmer House in Chicago. Attendance at this Conference is open, not only to members of the Chicago Medical Society, but to all interested members of the medical profession.

The program of these three intensive post-graduate days will be replete with interesting civilian and military medical subjects, to be presented by outstanding clinicians from all sections of the United States.

The daily scientific programs will consist of half hour lectures and clinics, beginning at 8:00 A. M. and continuing through until 5:00 o'clock, with suitable intermissions for inspection of the technical and scientific exhibits. At least three timely and interesting panel discussions will be included in the program.

A very interesting scientific session has been arranged for Tuesday evening. Wednesday evening will be devoted to the Annual Banquet with suitable entertainment and a prominent guest speaker, one with a message of vital concern to all.

The registration fee of five dollars will cover full attendance at all sessions, except the Annual Banquet.

Travel and hotel arrangement difficulties can be avoided by **MAKING YOUR RESERVATION NOW.**

Chicago and your host, the Chicago Medical Society, extend you a hearty welcome.

# Medicine's Role in the War Effort

## ARMY MEDICAL DEPARTMENT DISCONTINUES RECRUITMENT OF CIVILIAN PHYSICIANS

Paul V. McNutt, chairman of the War Manpower Commission, announces that he has been informed by the War Department that recruitment of civilian physicians for the Army has been discontinued. At the same time he announces that recruitment for the Navy must continue, since it has urgent need for approximately 3,000 additional medical officers. The U. S. Public Health Service and the Veterans Administration are also continuing to recruit physicians, Mr. McNutt said.

Vice Admiral Ross T. McIntire, chief of the Bureau of Medicine and Surgery, U. S. Navy, informed Mr. McNutt that personnel expansion and intensification of operations in the Pacific have precipitated a grave shortage of medical officers.

"With less than 13,000 medical officers on active duty in the Navy, the procurement of at least 3,000 more as soon as possible is imperative," said Admiral McIntire. "Even this figure will not meet actual needs but would ease the emergency that now exists; physicians and surgeons whose availability has been or may hereafter be certified by the Procurement and Assignment Service, WMC, should lose no time in obtaining particulars for commissions in the Navy Medical Corps by communicating with their nearest office of Naval Officer Procurement."

Mr. McNutt said he had been informed that the Army will fill its future requirements for military physicians from sources now available to the Army and thereafter will not require certification of availability of additional physicians from the Procurement and Assignment Service of the War Manpower Commission. There are now about 47,500 physicians on duty as medical corps officers of the Army. This probably includes those serving with the Veterans Administration and other governmental agencies to which the Army Medical Corps assigns its medical corps officers.

Mr. McNutt said that there are at present roughly 60,000 physicians in the armed forces and the Veterans Administration. The total number of physicians in

the armed forces represents approximately 40 per cent of the active medical profession of the United States.

In addition to the 3,000 medical officers needed at present by the Navy, the Public Health Service has need for approximately 300 for the U. S. Coast Guard and other agencies.

In informing Mr. McNutt of the termination of the Army recruiting of physicians except for the occasional specialist, Major Gen. Norman T. Kirk, Surgeon General of the Army, said, "The large number of physicians now in the Army volunteered for commissions without regard for their personal interests. The U. S. Army Medical Department is appreciative of the fine service they have given. Their removal from their usual practice also represents a sacrifice on the part of all civilians, who have had to get along with less medical care than they obtained in peacetime."

The Veterans Administration has, and will continue throughout the duration of the war emergency to have, assigned to it medical officers in the Army and the U. S. Naval Reserve to care for the needs of the casualties in its charge, the War Manpower Commission said. Doctors whose applications are at present in process for appointment in the Army Medical Corps will be considered for appointment and assignment to duty with the Veterans Administration, the War Manpower Commission Statement added.

Mr. McNutt said that the War Manpower Commission joins with the directing board of its Procurement and Assignment Service and the War Department and the Office of the Surgeon General in expressing appreciation of the sacrifice involved in cooperation that was necessary on the part of physicians and the public before the Army reached its present level of medical personnel.

Mr. McNutt also expressed the hope that additional civilian physicians will respond to the Navy's appeal for more doctors to apply for commissions. The needs of the U. S. Public Health Service and the Veterans Administration, he said, although much smaller than those of the Navy, are nevertheless important.

## NAVY NEEDS 3,000 DOCTORS

Vice Admiral McIntire, who is chief of the Bureau of Medicine and Surgery, stated recently that 3,000 more physicians will be required by the Navy because personnel expansion and intensification of Naval operations in the Pacific area has precipitated a grave shortage of medical officers. Admiral McIntire told Mr. Paul V. McNutt, chairman of the War Manpower Commission, that "with less than 13,000 medical officers on active duty in the Navy the procurement of at least 3,000 more as soon as possible is imperative."

The Army will fill its future requirements for military physicians from sources now available and therefore will not require future certification of availability of additional physicians from the Procurement and Assignment Service of the War Manpower Commission.

LEGION OF MERIT AWARD TO CAPTAIN  
KENNETH F. STOTZ

The Legion of Merit award was recently presented to Capt. Kenneth F. Stotz, formerly of Chicago. The citation accompanying the award read "For exceptionally meritorious conduct in the performance of outstanding services in the South Pacific Area from March 1942 to May 1944. At New Caledonia Capt. Stotz's unit was assigned to a 100 mile sector and, despite poor roads, he administered efficiently at the aid stations throughout the sector. During the unit's participation in the Guadalcanal campaign he frequently operated aid stations within 25 yards of the front lines and at the cessation of hostilities on that island he set up two small hospitals. An outstanding evacuation system was instituted and maintained by his unit during the Bougainville campaign. Displaying courage and devotion to duty, Captain Stotz performed a major operation under heavy enemy fire, thereby saving the life of a casualty. His foresight and executive and administrative ability contributed in a great measure to his unit's successful operation." Dr. Stotz graduated from Northwestern University Medical School, Chicago, in 1934 and entered the service June 3, 1941.



## TRENCH FOOT

The War Department recently issued a change in regulations governing treatment for trench foot from that given in the Technical Bulletin of Medicine No. 81, issued August 4, as follows:

Treatment. b. Definitive treatment. (1) Patients should be kept in bed, with the affected parts on a horizontal level with or elevated on pillows only slightly above heart level, and protected from external pressure either by complete exposure or by means of a cradle. Elevation of the extremities should be done only if there is no evidence of inadequate circulation, that is, incipient gangrene; otherwise they should be maintained on a horizontal level. The period of bed rest is determined by degree and rate of subsidence of edema for this form of treatment.

## NAVY NEEDS MORE NURSES

A total of 4,000 more nurses are urgently needed by the Navy by June 30, 1945, to maintain the strength of the Navy Nurse Corps at the desired level. With a present strength of 8,700 women in the Nurse Corps, at least 2,000 new recruits are being sought before the end of December 1944 in order to keep pace with the nursing requirements of the still expanding Navy while taking into account separations from the corps.

The Nurse Corps is scheduled to provide three nurses for every thousand men and women in the naval services. This means that the net strength of the Nurse Corps should be approximately 11,500 by next June.

SERVICE CHIEFS ASK FOR INCREASED  
BLOOD DONATIONS

An appeal for increased blood donations was made here by Vice Admiral Ross T. McIntire, Surgeon General of the Navy, and Major Gen. Norman T. Kirk, Surgeon General of the Army. Increasing casualties in both Europe and the South Pacific are necessitating air shipments of whole blood to both battle fronts. The service chiefs have pointed out that among those who have given blood are a number of men in service who themselves have faced death and suffered wounds. Many World War I veterans, they added, have been consistent blood donors. Whole blood is shipped daily from Washington and New York to Europe, and regular shipments go from the West Coast to the South Pacific. A new method had to be devised to keep blood fresh on its long journey via Naval Air Transport Service from San Francisco to Pearl Harbor and then to island bases.

NONCOMBAT DUTY TO SOLE SURVIVING  
SON IF TWO OR MORE BROTHERS  
HAVE BEEN KILLED

In recognition of the sacrifice and contribution made by a family which has lost two or more sons and has only one surviving, the War Department has approved a policy of returning to or retaining in the continental United States the sole surviving son of a family in cases in which two or more sons have been lost, except when the surviving son is engaged in nonhazardous duty overseas.

Sympathetic consideration will be given to every application in cases of families who have lost two or more sons and have only one surviving for return of the survivor to this country for duty here or for discharge from the Army, if the circumstances warrant. However, each case will be decided on its individual merits. In all cases of extreme hardship arising from family circumstances the Army has in the past cooperated to provide relief from active duty or discharge if the complaint has been found to have merit on investigation. The plan of removing men from the hazards of combat activity is an extension of this policy.

### PRISONERS OF WAR SERVICES

Through the cooperation of the American Red Cross, special optical, dental and orthopedic services are being provided for American prisoners of war. The American Red Cross reports that in all European prisoner camps the detaining power provides eye examination service. Prescriptions prepared by the camp optometrist are sent to Geneva, where a large pool of lenses has been established. When Geneva cannot fill the prescription it is filled elsewhere in Switzerland.

It was also reported that each camp usually has its own dentists: a German, American or another Allied dentist who is a prisoner. To meet shortages, dental supplies valued at about \$12,000 have been shipped to the International Committee of the Red Cross. When special dental treatment is needed it is paid for out of a revolving fund.

Temporary replacements are provided by their captors for prisoners who have lost a leg or an arm. The British and American Red Cross societies follow through by providing the best permanent mechanical limbs as soon as possible. To accomplish this a Swiss orthopedic mission visits all camps and measures the the prisoners for artificial limbs. These are constructed in Switzerland for American prisoners at the expense of the American Red Cross.



### NEUROPSYCHIATRY FOR GENERAL MEDICAL OFFICER

According to the Technical Bulletin of Medicine No. 94, issued by the War Department recently, every medical officer, regardless of his mission, whether battalion surgeon, ward officer, flight surgeon or dispensary physician, is confronted with psychiatric problems. There is an inadequate number of psychiatrists, and, furthermore, not only must the average medical officer do most of the minor psychiatry in the Army, but in some instances he may also be forced by circumstances to do major psychiatry. Psychiatric treatment, like surgical treatment, is most effective when carried out early, promptly and skillfully. Consequently, some of the best psychiatry will be done outside the hospital in such places as the dispensary, the consultation service, the battalion aid station, the clearing station and the air strip. Because most medical officers have inadequate training in this field, the suggestions in this bulletin are presented as a general guide.



### RED CROSS SENDS PENICILLIN BY AIR FOR PRISONERS OF WAR IN GERMANY

The American Red Cross has sent 5,000 tubes of penicillin by air express to the International Red Cross Committee in Geneva to be used for American prisoners of war held by Germany. The Red Cross Plans additional shipments of medicines and medical supplies for prisoners of war. The International Committee has been asked to keep the prison camp leaders informed of the medicines available in the

stocks held in Geneva for their use and to suggest that the leaders not allow camp stocks to become depleted before reordering.

Regular shipments of Red Cross first aid kits intended for use when doctors are not available have been made to the prison camps in Germany. Bulk shipments of medicine and medical supplies also have been made to supplement those provided by German military authorities for the care of sick and wounded prisoners of war.



### HEADS SIXTH SERVICE COMMAND

Brig. Gen. Russel B. Reynolds was recently appointed to succeed Major Gen. R. S. Aurand as commanding general, Sixth Service Command. General Aurand's new assignment has not as yet been made public.



### MENTAL HYGIENE COMMITTEE HONORS GENERAL KIRK

The National Committee for Mental Hygiene has elected Major Gen. Norman T. Kirk, Surgeon General of the Army, as one of its six new members, in recognition of his "unusual awareness of the importance of skilled psychiatric treatment in the Army."



### ARMY AIR FORCES CONFERENCE ON RHEUMATIC FEVER

A recent conference on rheumatic fever was held by the Army Air Forces in Denver. The objectives of the meeting were outlined by Col. William P. Holbrook, chief, Professional Division, Office of the Air Surgeon. Colonel Holbrook also discussed some of the unsolved problems of rheumatic fever which must be met during the next year. The report of the Committee on the Prophylactic Use of the Sulfonamides indicated that these drugs should be used in treatment only as a last resort and that their principal indication is for prophylaxis. The report of the Committee on Criteria for the Diagnosis of Rheumatic Fever contained recommendations based principally on the paper given by Dr. T. Duckett Jones at the Chicago session of the American Medical Association in June. The important recommendations of the Committee for Standardization of Convalescent Care of Rheumatic Fever were that no patient should be discharged to duty until he had actually undertaken duty under supervision in the convalescent center and that this duty should be in accord with his military occupational specialty.

### PENICILLIN FAILURES

"Penicillin failures," Arthur L. Bloomfield, M.D.; William M. M. Kirby, M.D., and Charles D. Armstrong, M.D., San Francisco, say in *The Journal of the American Medical Association* for November 11, "for the most part fall into the following groups: cases in which the treatment is too brief or the daily dose too small; cases in which penicillin fails unless surgical drainage is also done; overwhelming infection, even with a sensitive strain (of the invading organism)."

# Original Articles

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## THE OUTLET CONTRACTION WITH ESPECIAL EMPHASIS ON THE TYPICAL FUNNEL PELVIS

RALPH E. CAMPBELL, M.D., F.A.C.S.

Associate Professor of Obstetrics and Gynecology,  
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Undeniably the funnel pelvis and especially the typical funnel pelvis constitutes one of the most important pelvic abnormalities encountered in American white women. It may cause serious complications including dystocia and demand expert obstetric judgment.

Most authorities define funnel pelvis as a contraction in which the transverse diameter measures 8 cm. or less or in which the distance between the lower margin of the symphysis and the tip of the sacrum falls below 9 cm. The typical funnel pelvis is described as a contraction which is limited to the pelvic outlet while the superior strait remains normal.

The first accurate description of funnel pelvis was made by Baudelocque and Mme. Boursier du Coudray in the latter part of the eighteenth century.

Busch, in several reports taken from the Berlin Clinic (1829-1847), recognized dystocia frequently occurred in funnel shaped pelvises and emphasized that in those cases which escaped diagnosis, with the head often arrested at the outlet, low forceps were applied in expectation of an easy delivery which many times resulted in considerable force and sacrificing of babies by craniotomy.

Schauta in 1889 considered a funnel pelvis as one with a contracted outlet whose walls converged to such an extent that they caused a narrowing of the outlet. In this condition, he held that the contraction would be apt to involve either the transverse diameter of the outlet or the anterior posterior diameter or both diameters at the same time.

In 1896, Klein made a most important contribution when he stated that abnormalities of the outlet were present in 24% of 439 consecutive patients which he studied. He demonstrated very clearly that the dystocia at the time of labor in funnel pelvises was not entirely dependent upon the degree of shortening of either the transverse or the anterior posterior diameter but was usually dependent upon the available space between the line joining the tuberosities of the ischium and the tip of the sacrum, which he designated as the posterior sagittal diameter of the outlet. This diameter is in present day obstetric terminology referred to as Klein's posterior sagittal. Klein holds that the pelvic outlet is made up of two triangular planes whose bases meet at the transverse diameter of the inferior strait. Normally the head occupies the entire anterior plane, as well as the anterior portion of the posterior one; but in cases of transverse contraction less and less of the anterior plane can be utilized, while in extreme cases only the posterior plane is available for its passage. In such an event it is evident that the possibility of spontaneous labor will depend not so much upon the length of the anterior-posterior diameter of the outlet, as upon the space available posterior to the tubera ischia.

As far back as 1870, Breisky described a

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Read at the annual meeting of the Illinois State Medical Society, May 18, 19 and 20, 1943.

method to measure the distance between the tuberosities of the ischium as well as the anterior and posterior sagittal. Frankenhauser, in 1879, made an important contribution to outlet pelvimetry which has carried through to the present time.

Undoubtedly, the most important, practical contributions upon this subject, in this country, were made by Williams in 1909, and 1911. In these contributions he emphasized the value of outlet pelvimetry as a routine procedure and directed attention to the fact that contractions of the outlet occur much more frequently than is generally believed and occasionally give rise to serious dystocia. He further pointed out that the typical funnel pelvis most commonly has as its etiological factor a lumbosacral assimilation.

Williams in 1909 made a clinical classification for contractions of the outlet (funnel pelvis) which has stood the test of time. He distinguished between three groups, namely, typical, generally contracted and complicated funnel pelvises. In the first type, the superior strait is essentially normal, while the inferior strait is contracted, the narrowing occurring in either the anterior posterior or transverse diameter or in both simultaneously, as described by Schauta. In the generally contracted variety, the entire pelvis is smaller than normal, while the inferior strait is narrowed to a greater extent than is usual in typical justo-minor pelvises. In the third group are included a small number of flat or rachitic pelvises, osteomalacia, spondylolisthesis, and lumbosacral kyphosis, in which the outlet contraction is super-added to the typical deformity.

As to frequency, Harris reports from the University of Wisconsin Clinic that in all abnormal pelvic contractions an incidence of 2 to 1 in typical funnel pelvises over all other contractions. Stander in 17,700 women delivered in the New York Lying-in Hospital during a period of seven years reported 2,613 contracted pelvises of all types in which 25.5% were typical funnel pelvises. Mengert in a study of 234 contracted pelvises in Iowa white women found the typical funnel pelvis to be the most common type with an incidence of 66.7%. Williams reported in 1911 in 2,215 full term labors an incidence of 44% of typical funnel pelvises in 175 white females with contracted pelvises. Thoms in 1915 in 4,000 consecutive full term labors, reported from the Johns Hopkins Clinic, an incidence of 36.9% typical funnel pelvises in 330 contracted pelvises. (See Figure 1.)

As to etiology, Williams has undoubtedly shown that lumbosacral assimilation plays the important role in typical funnel pelvises. He has further shown that high assimilation alters the relations of the sacroiliac joints so that the lower portion of the walls of the pelvic cavity converge resulting in the contraction of the pelvic outlet. However, in the typical funnel pelvis the superior strait retains its approximate normal proportion. In his series of typical funnel pelvises, Williams was able to palpate six sacral vertebrae in a number of his patients, which helped to confirm this theory.

Breus and Kolisko have pointed out the frequent occurrence of lumbosacral assimilation and its effect upon the shape of the pelvic outlet. Hart has directed attention to his views on sexual inversion in the pelvis, in which he

FIGURE 1

	Johns Hopkins 6,407 White Women			Iowa 6,426 Women		
	Number of Patients	Incidence	Per Cent of Contracted Pelvis	Number of Patients	Incidence	Per Cent of Contracted Pelvis
Generally contracted, including generally contracted funnel .....	345	5.38	39.98	41	0.64	17.5
Funnel, typical .....	289	5.03	33.49	156	2.43	66.7
Simple flat .....	156	2.43	18.07	25	0.39	10.7
Generally contracted rachitic .....	33	0.52	3.82	1	0.02	0.4
All others .....	40	0.63	4.63	11	0.17	4.7
Totals .....	863	13.99	99.99	234	3.65	100.0

Courtesy of Dr. William T. Mengert.

holds that there may be an existence of male characteristics in the ischiopubic portion with associated female characteristics in the iliosacral region, which give rise to funnel pelvis.

Funnel pelvis associated with rickets, osteomalacia, spondylolisthesis and lumbo and lumbar-sacral kyphosis are not typical funnel pelvis, but should be placed in the third group of Williams' classification of funnel pelvis.

Over a period of years, the physician doing obstetrics has been more concerned with contractions of the inlet and has been inclined to overlook other contractions. It is most important to consider that the presenting part must not only pass through the superior strait or inlet, but through the mid pelvis where midplane contractions occur and finally it must make its exit at the outlet where funnel pelvis occurs. The foregoing statement means that meticulous pelvimetry should include not only the common external pelvic measurements but outlet measurements and internal measurements and examination as well. There are no substitutes in good obstetric care for these procedures.

To re-emphasize, a critical state of affairs still exists in the medical profession relative to pelvimetry. It is undoubtedly true that in too many instances, the external measurements commonly taken, such as, the distance between the anterior superior spines, between the crests of the ilium, between the heads of the trochanters, and between the depression beneath the spinous process of the lumbar vertebrae and the anterior surface of the symphysis pubis, are taken with the exclusion of internal and pelvic outlet measurements.

It is important to point out that the common external measurements may give a very erroneous idea as to the existence of a contracted pelvis; it is possible to have the external measurements all within normal limits with marked inlet contraction and certainly the common external measurements give little or no information as to what one may expect at the outlet.

I have found in postgraduate and refresher courses that many physicians react to outlet pelvimetry as if it were a curiosity and have no idea as to the taking of the measurements of the pelvic outlet.

In regard to outlet pelvimetry, Thoms made a valuable contribution in 1915; his technique in outlet pelvimetry is used in our Department

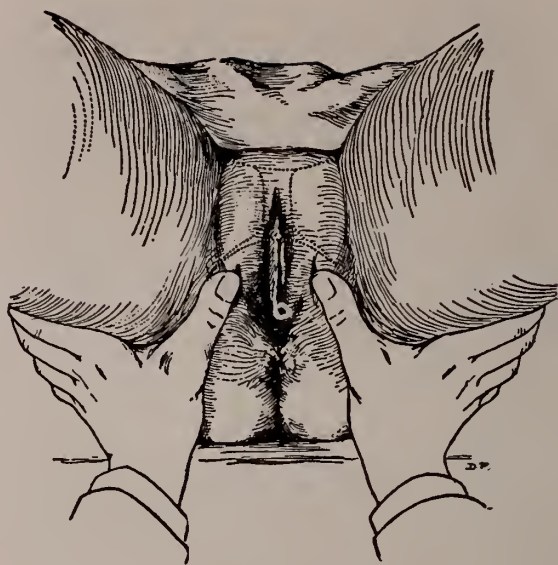


Figure 2

Palpation of pubic arch.

Courtesy of Dr. H. J. Stander and D. Appleton-Century Co., publisher of Williams Obstetrics.

of Obstetrics. As Thoms points out the diagnosis of outlet contractions depends upon the external palpation of certain bony landmarks and the measuring of certain diameters taken between these points. These landmarks are namely, the points corresponding to the most widely distant portions of the inner lips of the tuberosities of the ischium, the lower margin of the symphysis pubis and the tip of the sacrum. The greatest distance between the inner lips of the tuberosities of the ischium is designated as the transverse diameter of the outlet or the intertuberous diameter. The shortest distance between the lower margin of the symphysis and the anterior surface of the tip of the sacrum is called the anterior posterior diameter. From the center of the transverse diameter extending forward to the lower margin of the symphysis, a line may be drawn which is known as the anterior sagittal diameter, likewise, from the same point on the transverse diameter a line may be extended posteriorly to the anterior and lower most point of the tip of the sacrum, this is spoken of as the posterior sagittal diameter. If one examines these points in the bony pelvis it is seen that the anterior posterior diameter lies in a different plane from the others and does not represent the sum of the anterior and posterior diameters.

The following is the routine procedure for outlet measurements as carried out in our clinic;

the patient is placed in an ordinary obstetric examining position, on the back with the legs flexed and in stirrups, with the buttocks protruding over the end of the table so that the sacrum is readily palpated. The tubera ischii are first palpated, this is accomplished by grasping the buttocks in each hand in such a way that the thumbs outline the course of the ischiopubic rami while the web of the thumb comes in contact with the corresponding ischial tuberosity and the hollow of the hand holds the buttocks. (Figure 2). In this way the outlines of the pubic arch are very satisfactorily indicated by the position of the thumbs so that with a little practice one can readily determine whether it is normal, narrowed or very contracted.

After palpating the greatest width between the tuberosities, the thumbs are placed in such a position that their nails form a prolongation of the inner surface of the most widely separated portion of the ischial bones. The pelvimeter is then fitted upon the thumbs as in the accompanying illustration, and the widest distance between the tuberosities found; the distance between the thumb nails is then read directly off the centimeter scale. (Figure 3). With the instrument still in position the tubes are closed and one thumb is disengaged. The disengaged hand grasps the center of the horizontal larger tube and maintains it with slight pressure so that the axis of this part of the instrument and the

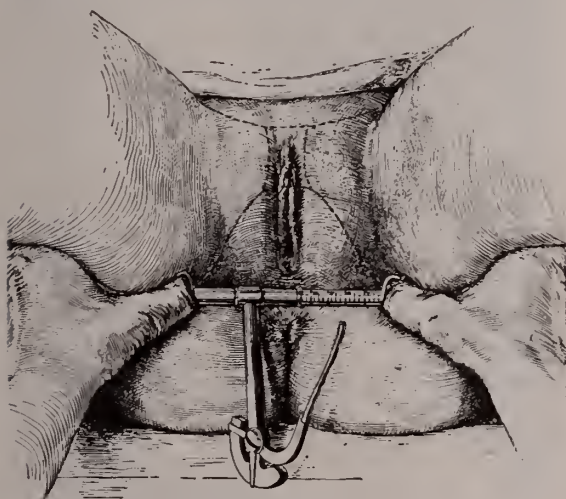


Figure 3

Showing mensuration of transverse diameter of outlet by means of Thoms' Pelvimeter.

Courtesy of Dr. H. J. Stander and the D. Appleton-Century Co., publisher of Williams Obstetrics.

intertuberos diameter coincide. Now the end of the free blade is brought in contact with the lower margin of the symphysis, this gives the length of the anterior sagittal. (Figs. 3a & 3b). The long arm of the pelvimeter is rotated and the distance to the tip of the sacrum is determined. The anterior posterior diameter is measured by placing one end of an ordinary pelvimeter at the lower margin of the symphysis pubis with the other end at the tip of the sacrum located through the skin. A deduction of 1 cm. in this measurement will give a fairly accurate idea of the length of this diameter.

The normal measurements of the outlet are

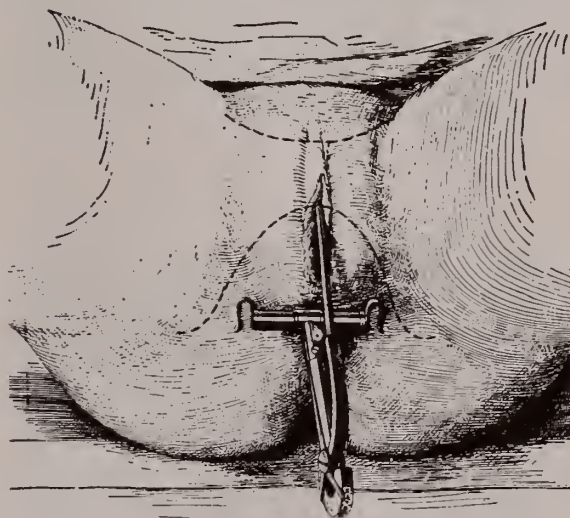


Figure 3a

Showing mensuration of anterior sagittal diameter of outlet by means of Thoms' Pelvimeter.

Courtesy of Dr. J. H. Stander and the D. Appleton-Century Co., publisher of Williams Obstetrics.

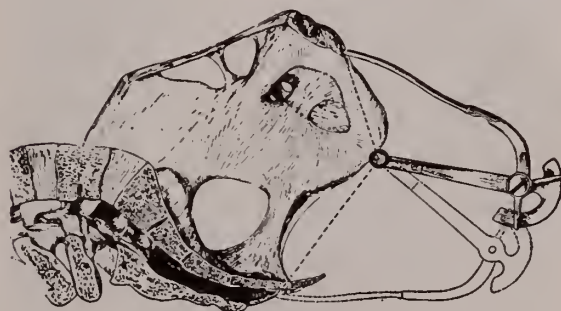


Figure 3b

Diagram illustrating mensuration of the anterior and posterior sagittal diameters of outlet by means of Thoms' Pelvimeter.

Courtesy of Dr. H. J. Stander and the D. Appleton-Century Co., publisher of Williams Obstetrics.

as follows: anterior sagittal, 6 cm.; posterior sagittal, 9.5 cm.; anterior posterior, 12 cm.; intertuberos, transverse or bi-ischial, 10.5 cm. (Williams); 9.5 cm. (Mengert). It is of interest to note that there does not seem to be very much variation in the anterior sagittal, however the thickness of the symphysis may vary it.

In my experience x-ray pelvimetry has proven a valuable adjunct to ordinary pelvimetry, but has not and should not replace it. I am presenting two cases which show the value of x-ray pelvimetry.

Case A was a patient admitted upon the orthopedic service for major surgery. Since the findings and history in this case were interesting from an obstetric standpoint, I was asked to see this case in consultation.

History: The patient had twelve normal spontaneous deliveries, most of them under the supervision of a mid-wife.

Pelvic examination was difficult due to some ankylosis of the hip joints. The following pelvic measurements were obtained: interspinous, 29½; intercristous 33½; intertrochanteric 35½; external conjugate 23; intertuberos 8; anterior sagittal 6; posterior saggital 10½; anterior posterior 13.

Morphology by x-ray: The entire bony pelvis has greater bone mass than normal and there is generalized osteoporosis. There are hypertrophic changes of the lumbar vertebrae and of both hip joints. These changes are most marked on the right where the joint space has been relatively obliterated. The side walls of the pelvis are convergent towards the outlet, meeting in a narrow sub-pubic arch. Both of the acetabula fossae are depressed inward causing a bulge which encroaches upon the lateral pelvic wall. The ischial spines are poorly marked and difficult to visualize but they do not appear to encroach upon the midplane. The symphisis is unusually broad and there is little sympheseal spread. The sub-pubic angle is narrow and is estimated to be about 90 degrees. The pubic rami are short and terminate in a narrow intertuberos diameter. The lateral and anterior posterior curvatures of the sacrum are good. The sacrum is composed of five segments. The coccygeal segments are not visualized. The pelvis is shallow. The sacrosciatic notches are unusually broad and this results in an outlet which is spacious in its posterior portion.

Stereoroentgenograms (percision method):

A.P. Template .....	9.9 cm.
Greatest transverse inlet .....	14.7 cm.
Greatest ischial spines .....	9.75 cm.
Greatest intertuberos .....	6.5 cm.
Lateral stereoroentgenograms	
Lateral templates .....	10.0 cm.
Obstetric conjugate .....	11.8 cm.
Conjugate diagonalis .....	13.1 cm.

Impression: This is a typical funnel pelvis with a narrow intertuberos diameter. However, the posterior



Figure 4  
Case A. Anterior posterior stereoroentgenogram typical funnel pelvis.



Figure 5  
Case A. Lateral stereoroentgenogram typical funnel pelvis.

plane of the pelvic outlet is large enough as a result of the long posterior sagittal diameter to permit successful spontaneous deliveries.

Figures 4 and 5 are anterior posterior (A.P.) and lateral stereoroentgenograms of Case A, showing a funnel pelvis which by this method of pelvimetry gave a calculation of an intertuberos diameter of 6.5 cm. compared to 8 cm. in regular external pelvimetry. The posterior sagittal in the lateral stereoroentgenogram was not measured because a stereoroentgenometer was not available, however, note the enormous size of the sacrosciatic notch. This would indicate that the posterior sagittal was large.

Case B. This patient, a primigravida, was seen by me at eight weeks duration of pregnancy. Her external pelvic measurements were as follows: interspinous 25; intercristous 28; intertrochanteric 30; external conjugate 19; diagonal conjugate — not reached; intertuberos 7.5; anterior sagittal 12; posterior sagittal 8.5.

Morphology by x-ray: This pelvis is symmetrical and predominantly gynecoid in type. The inlet is well rounded in both hind and fore pelvis. The bore is convergent with the side walls tapering toward the outlet. The lateral bore is straight. The ischial spines are relatively sharp and encroach only slightly upon the mid-pelvic cavity. The sacrum is average in width, has a normal lateral curvature and is composed of five segments. It is rather straight in the longitudinal view with an angulated five segment coccyx bending rather sharply forward. The sacrosciatic notch is rather narrow and deep. The sub-pubic rami form a narrow angle at the outlet.

Estimated distance between bases of markers

— A.P. 10.221 cm. ....error plus 2.21%

Estimated greatest transverse diameter of inlet — average correction .....13.88 cm.

Estimated interischial spinous diameter — average correction ..... 9.74 cm.

Estimated intertuberos diameter — average correction ..... 6.7 cm.

Estimated posterior sagittal ..... (stereoroentgenometer not available)

Index of outlet . (stereoroentgenometer not available)

Estimated conjugate vera (Thom's lateral) ..13.1 cm.

Estimated obstetric conjugate

(Thom's lateral) .....12.7 cm.

Estimated conjugate diagonalis .....13.0 cm.

Impression: This funnel type pelvis with a contracted outlet is not a desirable type for a full term foetus, since there is every indication based upon the lateral stereoroentgenogram that there will be dystocia at the outlet. Unquestionably, Klein's posterior sagittal diameter is very short and there is not ample room in the posterior space of the pelvic outlet. There is a suggestion of rickets in the sacrum.

Figures 6 and 7 show anterior posterior and lateral stereoroentgenograms. This pelvis gave an intertuberos diameter of 7.5 and a posterior sagittal diameter of 8.5 cm. by regular pelvimetry. X-ray pelvimetry showed the transverse of the outlet to be 6.7



Figure 6

Case B. Anterior posterior stereoroentgenogram typical funnel pelvis.



Figure 7

Case B. Lateral stereoroentgenogram typical funnel pelvis.

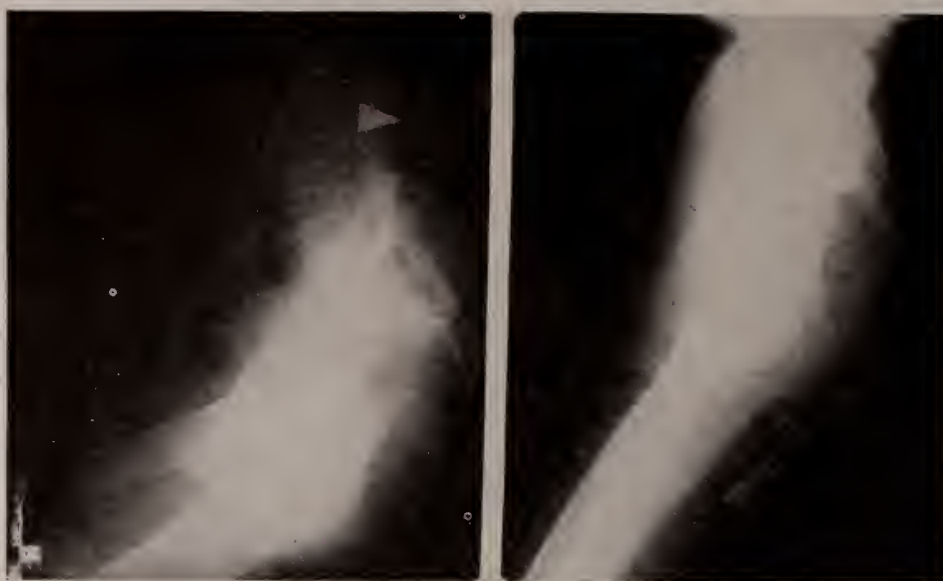


Figure 8

Case A and B. Lateral stereoroentgenograms typical funnel pelvises.

cm. but the anterior posterior stereoroentgenogram and the posterior sagittal were not measured because a stereoroentgenometer was not available. However, note how small the sacrosciatic notch is, this indicates very definitely that the posterior sagittal of Klein is very short as external pelvimetry indicated.

An elective cesarean section was the treatment of choice in this case.

Figure 8 shows the lateral stereoroentgenograms of Case A and B, revealing an interesting comparison between the two cases and their sacrosciatic notches, which indicate the comparative lengths of Klein's posterior sagittal.

As to prognosis and treatment, Williams points out that a transverse diameter of 8 cm. or less is short and emphasizes that unfortunately, the length of the diameter either alone or in combination with the anterior posterior diameter does not furnish sufficient factual data to establish an intelligent prognosis.

It is wrong to assume that outlet contractions rarely give rise to serious dystocia and that a considerable hazard can not result for both mother and child. On the other hand reports from the literature show that this complication may be fraught with serious danger for both mother and child. I have been thoroughly convinced by experience that the foregoing statement is true.

It is important to realize that the greatest danger to both mother and child lie in those

cases in which funnel pelvis has been undiagnosed. As has been stated elsewhere the pelvis with a transverse of the outlet of 8 cm. should be considered a funnel pelvis and be regarded as a potential danger. For the most part, the prognosis is dependent upon the length of the posterior sagittal. Figure 9 is an illustration in which spontaneous labor occurred through a transverse diameter of the outlet of 5.5 cm., and figure 10 is one in which cesarean section was indicated in spite of a transverse diameter of the outlet of 6.5 cm. The outcome in both of these cases was dependent upon the posterior sagittal. Figure 11 is a table compiled by Williams to show when the transverse of the outlet is shortened what the proportionate increase in Klein's posterior sagittal should be for spontaneous labor to occur, when the size of the baby is normal. Although this table has considerable merit it should not be decisive. Another dictum is that if the sum of the transverse and the posterior sagittal diameters exceed 15 cm. a spontaneous birth of a normal size baby is likely to occur.

I agree with Stander that the treatment of the funnel pelvis demands expert obstetric judgment. In dealing with it, we do not have the opportunity of estimating disproportion in a given patient as is possible in inlet contraction.

The exaggerated Sims' position may be use-



Figure 9

Courtesy of Dr. H. J. Stander and the D. Appleton-Century Co., publisher of Williams Obstetrics.

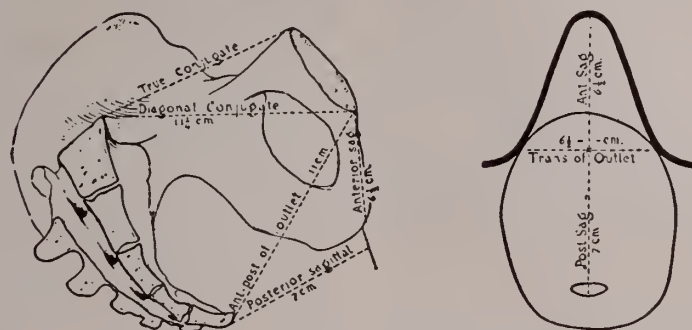


Figure 10

Courtesy of Dr. J. H. Stander and the D. Appleton-Century Co., publisher of Williams Obstetrics.

Figure 11

Table showing proportionate increase in Klein's posterior sagittal for spontaneous labor to occur.

Transverse Diameter, Cm.	Posterior Sagittal, Cm.
8 .....	7.5
7 .....	8
6.5 .....	8.5
6 .....	9
5.5 .....	10

Courtesy of Dr. H. J. Stander and the D. Appleton-Century Co., publisher of Williams Obstetrics.

ful in increasing the size of the posterior sagittal as much as from 1 to 4 cm. by allowing the innominate bones to rotate upon the sacrum, which may obviate an operative delivery in minor degrees of contraction. Also exaggerated lithotomy and the squatting posture may temporarily increase the posterior sagittal diameter and aid in delivery.

Relative to forcep operations in the funnel pelvis, it is imperative that traction be made directly outward or downward and outward, never upward as would be the procedure in low for-

ceps delivery in normal pelvis. Deep episiotomies should be done to prevent soft tissue injury. If reasonable traction in face of apparent obstruction is applied and continued with no advance it may result in serious consequences for both mother and child. Fracture of the skull and intracranial injury for the child and deep lacerations and bony pelvis injury for the mother may result.

It is my conviction as a result of checking the bony pelvis of patients admitted to our clinic for extensive plastic surgery, including third degree lacerations that a great many of such injuries undoubtedly had resulted from unrecognized funnel pelvis in which forceps operations had been performed. Such a deduction is reasonable as the narrowing of the pubic arch forces the head to pursue a more posterior course, thereby applying greater pressure to the soft tissues and causing injury.

In occiput posterior presentation the funnel pelvis frequently hinders the anterior rotation

resulting in deep transverse arrest, and difficult delivery.

Formerly the operation of choice in serious and unsurmountable dystocia in funnel pelvis was pubiotomy which has been relegated to obscurity. Early prenatal examination should obviate the problem of the neglected case when a decision has to be made between spontaneous delivery or elective cesarean section. It is my frank opinion that in the neglected case where the presenting part can not be delivered through the pelvic outlet and where the presence of infection is reasonably certain, that craniotomy is the method of choice. The second choice of treatment would be surgical, the type of surgery being determined by the consideration of infection, potential or frank, which immediately brings up a controversy as to the use of the low cervical section on the one hand and the radical or porro cesarean section, extra peritoneal, or exclusion operation on the other hand.

In women who have already lost one or more children as a result of this outlet complication, elective cesarean section should unquestionably be done.

In conclusion, this paper has been worth the effort if I have convinced any of you as to the seriousness of the outlet contraction and the importance of outlet pelvimetry.

I wish to thank Dr. William K. Knight and Dr. Curtis J. Lund for their assistance in the x-ray pelvimetry.

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#### DISCUSSION

Dr. R. J. Hawkins, Chicago: First of all, I should like to compliment Dr. Campbell on his excellent essay, but there is just one point I should like to bring up in the discussion. Perhaps it is just a minor point, but we have discussed the posterior sagittal diameter. I think the term very properly should be the "posterior pelvis." From the physical examination of the patient it is not a difficult task to estimate the posterior pelvis by merely running your finger across the sacro-spinous ligament and estimating the size of the sacrosciatic notch.

Another thing that was not mentioned so far in the paper, is the size of the baby in estimating what is likely to occur. In a moderate contraction it is a case of judgment — and often you are damned if you do, and damned if you don't. But I think the size of the baby should at least be mentioned in a discussion of this kind.

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#### NASAL MEDICATION

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The use of nasal medication has never been as widespread and popular as it is today. One may readily ask why this is so. In part, its popularity is most likely due to the public's growing awareness that common colds are known to be possible forerunners of serious complications. In part, the answer lies in the fact that it has made convincing scientific progress. Actually, nasal medication may be considered to be tapping on the door of maturity. The tapping should grow louder, for there is ample evidence to demonstrate that it will continue to improve with the passing of time.

To a large extent the advance made by rational nasal medication can be attributed to our expanding knowledge of the physiology of the nose and the histopathology of nasal and sinus mucous membranes. In this connection the in-

Read before the Section on Eye, Ear, Nose and Throat, Illinois State Medical Society, May 16, 1944.

vestigations of a number of American rhinologists have often proved noteworthy and meritorious. A second factor responsible for improved nasal medication can be attributed to the trend toward greater conservatism in the treatment of nasal and sinus disease. Clearly, this is a natural reaction to some of the ill-advised surgical practices of the 1920's. A third factor has been the ability of pharmacologists to produce nasal preparations in many instances which are non-toxic or which possess a minimal rate of toxic absorption. As a result of these forces, impetus has been given physicians and the public for a free and wide selection of nasal medicaments.

At the present time it is difficult to obtain a complete list of the various types of nasal medication now available to the medical profession and to the public. There does exist, however, one source which provides a numerical index, incomplete though it may be, to nasal medication. This work enumerates many thousands of ethically promoted drugs acceptable to the medical and allied professions, listing several hundred nasal preparations for use in disease of the nose and nasal sinuses. Many of these preparations are popular and enjoy a measure of clinical success; others, despite ethical promotion on the part of well intentioned pharmaceutical manufacturers, continue to be obsolescent as far as concerns the modern tempo of nasal physiology. Significantly, this shortcoming is equally applicable to a large number of non-ethical medications advertised directly to the general public.

Nasal medication is available in many forms and for many purposes. That there exists an element of confusion and a degree of chaos in nasal therapy is evident by calling the roll of various kinds of nasal medicaments: vasoconstrictors, silver preparations, sulfonamide preparations, anti-biotics, oils, antiseptics, topical anesthetics, volatile inhalers, powders, estrogens, intranasal vaccines, cauterizing agents, saline solutions, bacterial lysates, emulsions, inhalants and nasal jellies. Many of these preparations are useful and worthy of clinical trial; some are of questionable value, while others are detrimental to the nose and sinuses.

Before we can hope to erect a solid foundation for the housing of sane nasal medication it is essential to know how the nose functions. Disturbances in the nose quite frequently are an expression of disturbed physiology rather than

the end-result of gross pathologic change. The more one examines the reaction of the normal or abnormal nose, the more firmly does this fact impress itself upon the observer. The disturbances or diseases which concern the nose and nasal sinuses, be they functional or pathological, have an array of symptoms common to both origins. For the relief of such prevalent complaints as sneezing, nasal obstruction, discharge, tickling, burning, itching and dryness, the use of nasal medication has become exceedingly widespread. Despite that popularity, however, relatively few nasal preparations are prepared for public distribution with sufficient scientific forethought to produce the most effective product possible from the materials at hand. Such a state of affairs can be remedied by recognizing the significance of nasal physiology.

Wide acceptance of a rational form of nasal and sinus therapy by the medical profession can be established only if there is a clear understanding of the manner in which nasal preparations work. Such an understanding is assisted materially by studying the effects of drugs on several very important factors: (1) ciliary action; (2) nasal pH; (3) the behavior of the mucous membrane lining of the nose; and (4) the production of systemic and local side-effects. Nasal medication harmful to ciliary action impairs a highly important function. Markedly alkaline drugs are very irritating to the nasal mucous membrane; drugs prompting pathologic change in the underlying mucous membrane are agents to be avoided. Drugs which induce toxic reactions following intranasal medication are undesirable and merit small consideration in routine practice. Conversely, non-toxic medication, compatible with ciliary action, possessing a physiologic nasal pH and which is non-traumatizing to the mucous membrane, is most useful in the treatment of nasal and sinus disease for its functions on a rational, physiologic basis.

Ciliary action constitutes one of the most important natural defenses of the nose. The nasal mucous membrane is covered by a thin blanket of mucus which is kept moving in the direction of the nasopharynx by the action of cilia. The mucus film is kept in constant motion toward the nasopharynx by the action of cilia directly, by traction, by the force of gravity and by the action of swallowing. It is admirably adapted

to the function of entrapping dust, bacteria, powder, etc. Any interference with the continuity of the mucous coating or with the action of the cilia will permit inflammatory organisms to gain entrance into the underlying tissues. Therefore, in treating nasal diseases, it is wise to conserve and favor, as far as possible, this natural means of muco-ciliary defense against organisms.

With these phenomena in mind, the necessity for altering the point of view of treatment of nasal conditions from an exclusively bacteriologic to a physiologic one becomes apparent. The tendency to assume that nasal medication should always include antiseptics on the theory that the nose is teeming with pathologic bacteria is unfortunate. While the elimination of pathogenic nasal organisms is desirable, and perhaps may be accomplished on some occasions by appropriate nasal antiseptics, one should always remember that the natural defenses of the nose as expressed by ciliary activity are most helpful.

Preservation of ciliary activity is often assured by isotonicity. A solution is said to be isotonic when it exerts exactly the same osmotic pressure as a second fluid with which it is brought in contact. Whenever a solution is applied to the nose, unless that solution is of the same osmotic pressure or is isotonic with the surrounding secretions, an unpleasant irritation is frequently instituted. It has been demonstrated that cilia remain active over long periods in physiologic solution of sodium chloride, but lose their activity when more concentrated, hypertonic solutions of salt are employed. Should the concentration of the solution be made hypotonic, all activity ceases and the cilia are permanently disabled. These findings indicate quite clearly that an isotonic saline solution is the vehicle of choice for nasal medication.

Another extremely important biological phenomenon involving nasal secretions is pH. It will be recalled that the pH scale, a means of expressing hydrogen ion values numerically, is today in common usage. The working range of the pH scale lies between 0 and 14. Values below 7 indicate an increased hydrogen ion concentration, or predominance of the acid reaction, while values above 7 indicate an alkaline reaction. Recent investigations demonstrate the clinical significance of nasal pH. The pH of nasal secretions in situ in the clinically normal

nose has been found to be slightly acid, between 5.5 and 6.5. Conversely, during the acute stages of the common cold and sinusitis, and during the more active phases of an attack of allergic rhinitis or hay fever, the nasal secretions become alkaline.

These findings possess clinical significance, for those nasal preparations instilled into the human nose which are capable of lowering the nasal pH from an abnormal alkaline state to a desirably normal, acid state may perform a valuable function. On the other hand, nasal preparations that raise, enhance or perpetuate an alkaline nasal pH during acute nasal infections may prolong an undesirable status of nasal pH, a status in which the bacteria accompanying the acute infection find a fertile field for growth. Some few years ago an English investigator correlated the bacterial flora of the nose and sinuses with the pH values and found that a definite relationship between these two factors could be determined. He noted that in all patients in whom the pH value was 6.5 or below, cultures were negative. With an elevation to the alkaline side, bacteria were usually found. It was concluded that low acidity is unfavorable to the growth of pathogenic bacteria. In allergy, it is particularly significant that when the pH of the nose falls low on the acid side there is a complete disappearance of the eosinophiles; but when the pH returns to the alkaline side there is a return of the eosinophiles. From the point of view of applied nasal therapeutics, these investigations establish the importance of utilizing slightly acid nasal preparations. To divorce and separate the ciliary factor from the pH factor is to tell but half the story of applied nasal physiology. The generally accepted American advertising slogan "It is time to alkalinize" certainly does not apply to the local treatment of the nasal mucous membrane.

One of the pivots about which the establishment of rational nasal medication revolves in part is the mucous membrane. From the time the human being is born to the time that he dies, the lining mucous membrane of his nose is continuously subjected to the lashings of acute infections, weather conditions, smoke, dust and chemical substances. Since the mucous membrane of the nose is a specialized tissue whose chief functions are respiration and olfaction, it

is obvious why it undergoes a variety of microscopic and gross changes in adapting itself to ever-changing environmental circumstances. Less obvious is the tendency in some quarters to prescribe nasal medication harmful to the mucous membrane. A case in point is the local use of highly alkaline sulfonamide preparations in the nasal cavity.

Early last year Long declared that the introduction of sulfonamide compounds as prophylactic and curative agents in the field of surgery has not been an unmitigated blessing because of a growing tendency to neglect fundamental principles of good surgical judgment and technique and to rely instead on the wholesale use of the "wonder drugs". In a limited sense, this judgment is equally applicable to the promiscuous use of sulfonamides in nasal and sinus infection; for here, many physicians neglect the sound physiologic principles upon which rational nasal and sinus medication rests. The danger in ignoring some of these basis principles is amply illustrated by the use by nasal spray of a 5% solution of sodium sulfathiazole in the treatment of chronic sinusitis. When this proposal was described, many physicians throughout the country began a mass clinical trial before adequate laboratory investigation had been undertaken. The pH of a 5% solution of sodium sulfathiazole is approximately 10; hence, it possesses decidedly irritating properties and is all together too alkaline for the nasal mucous membrane.

Investigations by three groups of investigators demonstrate conclusively that alkaline preparations of sodium sulfathiazole injure the mucous membrane. Furthermore, the destruction of cilia, and consequently the impairment of ciliary function, together with its deviation from a physiologic nasal pH, as well as the disorganization of the olfactory epithelium which such preparations establish, plus the production of bronchopneumonia in laboratory animals, cannot justify the indiscriminate selection of sodium sulfathiazole preparations for use in the human nose.

Appropriate drugs selected for effective nasal and sinus medication should in a measure not only do what the physician hopes to accomplish without harming the nasal tissues, but also should do no harm elsewhere in the body. It is obvious that drugs which induce toxic reactions following intranasal medication are undesirable

and merit small consideration in routine practice. Undeniably, nasal medicaments that consistently produce unlooked for changes in blood pressure, pulse rate and alterations in respiratory frequency, as well as such symptoms as general nervousness, insomnia and tremor, cannot be considered satisfactory. Fortunately, a comfortable margin of safety accompanies the selection of a number of nasal medicaments currently utilized. While side-effects sometimes occur, it should always be kept in mind that no rational employment of nasal medication can tolerate promiscuous and injudicious over-indulgence. Physicians should realize that there is a growing tendency on the part of the general public to indulge in promiscuous self-medication. This is especially true in the field of nasal medication. To warn against the unpleasant sequelae following promiscuous and prolonged daily nasal self-medication is an obligation of physicians.

Patients employing sulfonamides locally are potentially subject to all the risks entailed by oral or parenteral administration. In a therapeutic field as new as this, physicians should be on their guard as to the possibility of such complications as allergic rhinitis, toxic dermatitis, hematuria, jaundice, blood dyscrasias, hyperpyrexia, central nervous system effects, weakness and pallor, and nausea and vomiting. Unintelligent and careless local use of sulfonamide preparations may develop in the patient a sulfa-resistant state. In general, such resistance is by no means a theoretical matter.

While the evidence to date would seem to indicate caution in the use of some of the sulfonamide preparations in the nose and sinuses, others are employed successfully in a limited number of directions. It is quite possible that the near future may see the further introduction of sulfonamide preparations, as well as new anti-biotics, which locally are non-toxic and which are compatible with the tenor of modern day nasal physiology. Such agents, however, may in time prove useful only as an adjunct to the effective treatment of nasal and sinus infection, rather than as a universal "cure-all".

The responsibility for continuing the march of progress so far made by nasal medication lies directly within the sphere of three groups of people. For one, the physician has a responsi-

bility to his patients. He should prescribe nasal medication formulated on sound physiological and pharmacological principles. To prescribe obsolescent products is to fall short of prescribing the established best in local nasal therapy. Secondly, pharmaceutical manufacturers have a dual responsibility: to the general public, and to the medical profession. It is their function to manufacture the best type of nasal medication, consistent with principles generally accepted as being highly desirable. In this direction a progressive spirit is displayed by many pharmaceutical houses as evidenced by a trend toward adequate manufacturing control. Finally, the general public should be educated to assume a responsibility all its own — that of supporting and purchasing nasal medication established on sound principles. It is often true that the public has little equipment to differentiate between good and bad; but to some extent, this confusion is being eliminated by a campaign of education promoted by physicians and progressive pharmaceutical houses.

Improved treatment of nasal and sinus disease demands improved nasal medication. Improved nasal medication requires an alert medical profession and a progressive pharmaceutical body. The cause of rational nasal medication can acquire a sympathetic audience only through the cumulative education of physicians, manufacturers and the general public. Then, perhaps, the clarion call for an ideal nasal medication may be answered, and the achievements of today may lead to the greater benefits of tomorrow.

185 N. Wabash Avenue.

#### IMPORTANT

Send changes of address to  
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## MESENTERIC THROMBOSIS WITH POST- OPERATIVE ADMINISTRATION OF DICUMAROL

PAUL F. FOX, M.D., F.A.C.S.

CHICAGO

Mesenteric thrombosis is a very serious and frequently fatal condition. Hertzler<sup>1</sup> states that even after operative resection, the thrombotic process usually extends, and that reports of recovery should be viewed with suspicion. Consequently, any method of preventing or limiting the spread of the thrombus should be of great value. There have been reports<sup>2</sup> of the use of dicumarol in patients with mesenteric thrombosis and the results were apparently good. For this reason, the patient herein discussed was given the anti-coagulant, dicumarol. (3, 3' — methylenebis 4-hydroxycoumarin)\*

#### CASE REPORT

J. P., white, male, aged 65, hospital number 44-7346, entered the hospital at 11:30 A.M. on July 12, 1944. His chief complaint was pain in the right lower abdominal quadrant. Nine and one-half hours before admission he had noticed pain, sudden in onset, crampy in character, occurring every half hour and lasting about two minutes, located in both lower abdominal quadrants. Three or four hours after the onset of the pain, the location changed to the right lower abdominal area and it became constant in character. After this it gradually increased in severity. No nausea or vomiting occurred, but a distinct feeling of weakness was noticed. There had been no bowel movement on the day of admission, but a normal evacuation had been noted the previous day.

Past history showed only an attack of biliary colic which subsided in one day, occurring one year prior to admission.

Examination at the time of entry to the hospital revealed a rather corpulent white male, aged 65, not acutely ill. His temperature was 99.6°F., pulse rate 76, respiratory rate 22 and blood pressure 150/86.

The essential finding at this time was slight tenderness in the right lower abdominal quadrant.

He was given two grains of sodium luminal hypodermically and an ice bag was placed on the lower abdomen. A period of observation was deemed advisable because of the absence of significant physical findings.

The blood count, taken soon after admission, showed 4,560,000 erythrocytes, 14 grams hemoglobin, and 13,300 white blood cells of which 84% were neutrophils, 1% basophils, 8% lymphocytes and 7% monocytes.

The urine was normal.

From the Department of Surgery — St. Anne's Hospital, Chicago.

\*Dicumarol obtained through the courtesy of The Eli Lilly Co., Indianapolis, Ind.

Eight hours after admission, his temperature had risen to 100.2°F. The right lower abdominal region was moderately rigid, and there was definite tenderness and rebound tenderness in this area. The rectal examination showed no abnormalities. Confirmatory signs of appendicitis (obturator, psoas, Rovsing, etc.) were absent. Nevertheless, because of the tenderness and rebound tenderness in the right lower abdomen, a diagnosis of acute appendicitis was made and operation advised.

At operation, which was performed under spinal

anesthesia (150 mg. novocaine), a McBurney incision was made. Upon opening the peritoneum, a moderate amount of blood-tinged fluid escaped. The appendix, which was grossly normal in appearance, was removed. Weir's method of extending a McBurney incision was then utilized and the lower abdominal cavity examined more fully. A segment of bowel, firm to palpation, was easily withdrawn from the abdominal cavity. This bowel was identified as distal ileum. Its color was dark with a thick wall covered by a thin, fibrinous exudate and its length was 12 cm. The mesentery attached to it was thick, edematous, and no pulsating vessels in it could be felt. Beyond this area of involved bowel the mesentery was edematous for a considerable distance both proximally and distally. However, the intestine proximal to the involved area, was only slightly distended. Because the patient's condition was satisfactory, a resection was decided upon and accordingly a segment of ileum 60 cm. in length was resected. This included all bowel to which edematous mesentery was attached and extended from a point about 10 cm. proximal to the ileo-colic juncture to a point in the lower ileum 60 cm. above. As the mesentery was divided (close to its root) some of the vessels were seen to be filled with well developed thrombi.

A lateral (side to side) anastomosis was performed after the resection. The opening in the mesentery was closed and the abdominal wound closed without drainage.

The pathological examination was made by Dr. Lewis R. Hill and the report was as follows: "The section of ileum is 60 cm. in length. The serosa is smooth except for approximately 12 cm. in the middle which is covered with a thin, fibrinous exudate. The wall is edematous. The mesentery to its root is attached and contains thrombosed blood vessels. The appendix is 8x0.7 cm. with slightly roughened and injected serosa, thick wall and narrow lumen.

Microscopic sections reveal hemorrhagic infiltration in the mesenteric fat and occlusion of the mesenteric blood vessels with blood clot. Sections of the involved

bowel wall show edema and marked engorgement of the vessels, beginning leucocytic infiltration of the serosa and beginning epithelial desquamation of the mucosa."

Aside from the use of the dicumarol, the post-operative management was the usual one for a condition of this kind. Intravenous fluids and Wangensteen suction siphonage (except for the time intervals it was shut off after the oral dose of dicumarol) were required for the first four post-operative days.

The accompanying table shows the dosages of di-

Post-Operative Day	1	2	3	4	5	6	7	8	9	10	11
Prothrombin Time. Percent of Normal		84%	100%	89%	58%	33%	26%	50%	60%		71%
Dicumarol Mgs.	300	100	200	200	100	100					

cumarol given and the effect on the prothrombin time. The drug was given by mouth each afternoon (after the first dose) and the prothrombin time determined each morning by the Quick method. No untoward effects were observed as a result of its use.

On the eighth post-operative day the patient became ambulatory. Wound healing was uneventful.

Beginning on the fourth post-operative day, the patient was somewhat distressed by frequent, watery stools, which fortunately, diminished in frequency each day. By the time he left the hospital on the 13th post-operative day, he was having three bowel evacuations daily without distress.

Since leaving the hospital, the patient has been seen on five occasions and he is well and active. His recovery is satisfactory and apparently complete.

COMMENT

In reviewing this case report, it is evident that the onset and spread of the thrombotic process must have been rather gradual as shock and early obstructive manifestations were not present. Nevertheless, the findings at operation were unquestionably those of mesenteric thrombosis.

It is difficult to know whether the dicumarol prevented the characteristic disposition of the process to extend, but it is reasonable to assume that an anti-coagulant could accomplish such an effect.

The side-to-side anastomosis was performed in preference to an end-to-end type because of the relatively narrow lumen of the terminal ileum. Just enough ileum proximal to the ileo-colic junction remained to make the lateral anastomosis possible. The mesentery was resected to the root as gangrenous mesentery left behind would likely produce peritonitis.<sup>3</sup>

Finally, the removal of the appendix could be criticized as an unnecessary procedure as it was grossly normal and its excision did not aid in the management of the underlying condition. 5567 W. North Avenue.

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## FALCIPARUM MALARIA

### VICTOR DARWIN THOMAS, M.D.

MARCY, NEW YORK

Falciparum malaria in nine individuals, diagnosed by finding crescents during a four months residence in Southern Illinois in the year 1905, thirty-eight years ago, may provide considerable interest to all physicians and surgeons at this time.

Patients were from farms or residents of a soft coal mining town. The mine, homes, hospital, buildings and town site were the property of Mr. Joseph Leiter, who always inspected his special interest, the hospital and provided everything suggested.

Inspiration for research: typhoid fever frequently on death certificates from this and adjoining counties thirty-eight years ago. Opportunity first to prove absence of typhoid fever; second to bring positive diagnostic assistance to all; third to evaluate the administration of quinine in acid.

Anopheles were found hibernating in top corners of rooms of homes. In the rear of each residence was a pump. From the usual clear pool of water near the pump, larva were scooped up and placed in a bowl within a screened enclosure at hospital, after death of mosquito, hull was mailed to Washington, D. C.

Case record cards, some thirty on malaria, size five by seven and upon the back of each is inscribed, slide and serial number with date, many with colored drawings of plasmodium malaria. This paper will consider the nine persons in which positive crescents only were found and drawings made at time of examination. These case record cards were the individual property of the writer. Dr. Aderhold kept regular hospital and out-patient case records, there-

fore most of actual record of continued treatment will not be available, however this paper will be limited to diagnosis as made from blood slide.

Collection of blood: routine specimen from ear lobe of every person that came into the hospital.

Examination of fresh unstained specimen should be made when possible. The writer found positive crescent across a red cell with dancing pigment in center of crescent. This may be routine. The writer searched for three hours in a stained slide taken at same time before finding a single crescent. Search was continued for that length of time, under the supposition that crescents were there. See case No. 8; lab. No. 631, Nov. 21, 1905.

It would be more economical to examine a blood slide every three or six hours, day and night, than to follow other leads of typhoid, pneumonia, tuberculosis, etc. Treatment may be instituted after the first group of blood smears, which may save the life of the patient if the disease is falciparum malaria and such treatment will not be antagonistic to other diseases.

Inadequate treatment would be the use of sugar coated tablets. It is hoped that after quinine is again available, a law will make it illegal to manufacture coated quinine tablets.

Adequate treatment may well be by intravenous route for one or more doses. Our series of nine cases all recovered following administration of quinine sulphate dissolved in acid. Case 4 first seen at his residence in deep coma at night. No medication given. Wife was told that if patient lived through the night, to bring him to hospital in the morning. Patient walked to hospital in the morning and was put to bed. This was good advice. Had patient been given quinine while comatose one would have expected a sudden dissolution of parasites in the cerebral capillaries and death, or that products of red blood cells would block the kidneys and precipitate blackwater fever. This patient after hospitalization of five days went to work as a miner, returning ten days later reported working each day, crescents present, returning seven days later reported working each day, crescents continue present following twenty-two days of treatment. Modern treatment would have made every effort to make this patient a non carrier.

Two members of one family were infected with falciparum malaria. This happened in two families, (see cases number 5, 6, 7, 8). This fact may not be of diagnostic value where anopheles do not reside, however it helps the reader of this paper to understand that the finding of a positive crescent is a great satisfaction. Record shows case 8 had been sick with chills and fever in the previous three months. Also that a six year old sister died from supposed typhoid fever. This same case 8 required three hours search of stained slide before one crescent was found. Time for search would have been less, if writer had used a thick smear.

Diagnosis in these nine cases made only when a crescent was found. Ring forms were a lead, but no case in this series was recorded as falciparum malaria, unless a positive crescent was found. Writer would occasionally make smears every three hours day and night in hospitalized cases. The making of six or eight slides, allows several to be sent to physiological and pathological departments of nearest medical college, where some students will spend hours if you request a colored drawing. In one case my first reply stated "no parasites" however next mail stated "It contained large numbers of typical crescents (signed) W. A. Evans." This referred to our case 4, slide No. six hundred and four, marked H. This slide was taken ten days after patient discharged from hospital.

Nine cases listed below:

- No. 1, No. 523 Sept. 11, 1905, L. W., age 21, teacher; one crescent in thirty minutes.
- No. 2, No. 539 Sept. 18, 1905, L. C., age 18, farmer; two crescents in thirty minutes.
- No. 3, No. 548 Sept. 20, 1905, F. B., age 30, farmer; one crescent.
- No. 4, No. 580 Oct. 5, 1905, G. J., age 20, miner; fifteen crescents in one hour.
- No. 5, No. 593 Oct. 14, 1905, I. T. age 16, home; two crescents.
- No. 6, No. 594 Oct. 14, 1905, C. T., age 12, school; two crescents.
- No. 7, No. 630 Nov. 14, 1905, N. B., age 14, school; one crescent in thirty minutes.
- No. 8, No. 631 Nov. 21, 1905, M. B., age 9, school; one crescent in three hours.
- No. 9, No. 643 Nov. 27, 1905, slide from Benton physician; four crescents.

#### SUMMARY

- (a) Make blood slide from anyone needing medical or surgical service.
- (b) Stain Azure two and Hochst Eosin used.
- (c) Unstained specimen may be invaluable.
- (d) Drawing and crayon coloring important.
- (e) Extra slides for distribution.
- (f) Chills, fever and other symptoms may be absent.
- (g) Do not wait for Widal return. Case seven admitted to Zeigler Hospital as typhoid fever, but when a negative Widal was returned from Springfield State Laboratory, writer found crescent after thirty minutes.
- (h) Crescents may be found in a person presenting no symptoms, the next day may be in coma, so consider a positive crescent as a bomb with malignant potentialities.
- (i) Allow one hour on thick smears and three hours on thin smears for examination. Page 206 Journal American Medical Association September 25, 1943, suggests five minutes for thick and fifteen minutes for thin. If the writer had followed the brief examination period, one case, number four, would now be reported in place of nine positive cases.

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#### A CASE OF PHENOBARBITAL POISONING

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Cook County Hospital  
CHICAGO

B. K., aged 19 years was brought to the Cook County Hospital on April 19, 1944 in coma. After the patient had regained consciousness, a history was obtained from him that he had taken 39 grains of phenobarbital and that he was an epileptic. He had been recently discharged from the Navy and probably was despondent.

Physical examination revealed a well developed, well nourished young white man of approximately the given age. He did not respond to stimuli. Blood pressure was 130/100. Temperature 99.6° F. Pulse was 80, respirations 20. There were no apparent injuries upon the scalp. The pupils were equal and reacted to light. There was a small laceration on the lower lip. The tongue was dry and coated. No rigidity of the neck was noted and there was no adenopathy. The lungs were clear to percussion and auscultation. The heart was not enlarged and the rate and rhythm were regular. No masses were noted in the abdomen and no rigidity or tenderness. The liver, kidneys and spleen

were not palpable. The bowel sounds were normal. The reflexes were absent.

The stomach was washed and a catheterized specimen of urine was submitted for chemical examination which showed the presence of 0.8 mg. of phenobarbital per 100 cc. of urine. On the afternoon of admission, 36 mg. of picrotoxin and 2 cc. of mercupurin were given. Also 2000 cc. of dextrose in saline solution were administered intravenously. On the following morning the patient was still in coma. The temperature was 99.8° F. taken rectally. Respirations were good; chest was clear. The dextrose and saline solution was repeated and he was given 72 mg. of picrotoxin. Late in the afternoon the patient responded somewhat, opened his eyes, and said a few jumbled words. On the third day he responded a bit more to stimuli. The temperature rectally was 102.6° F. There were a few bronchial rales in the chest. The dextrose and saline solution were continued, also 1 cc. of mercupurin and 36 mg. of picrotoxin were given during the day. Chemical examination of the urine still showed the presence of phenobarbital. The patient was able to give his name and address on this day. On the fourth day his temperature was normal. He responded well to stimuli. Five per cent of dextrose and saline solution were given intravenously, as well as 33 mg. of picrotoxin. The urine still showed the presence of a barbiturate. On the fifth day the patient responded well but seemed very drowsy. The speech was slow but clear. The temperature was normal. Urine still showed phenobarbital. On the sixth day the patient was rational. He gave a history of having had epileptic seizures for twelve years with about one convulsion a year. He stated further that a physician in Arizona had given him a prescription for 150 1½-grain tablets of phenobarbital with instructions to take one tablet each night. The patient apparently had taken an overdose to "end it all." The urine still showed the presence of phenobarbital on this day. He was then subsequently removed to the Hines Hospital for further treatment.

By reason of the fact that this man had been taking phenobarbital daily, a depression of the central nervous system resulted and some of the barbiturate was retained in his system from the repeated therapeutic doses. Therefore when he decided to "end it all" we were dealing with slightly more than 39 grains of phenobarbital. He was given 174 milligrams of picrotoxin with recovery.

This case is reported to show the efficiency of picrotoxin treatment in barbiturate poisoning. Also to warn physicians that large quantities of barbiturates should not be dispensed to a patient at any one time, as illness and death by this type of drugs are on the increase. Further, barbiturates should be dispensed only upon the prescription of a physician and on the prescription "Non rep." (non repetatur: do not repeat) should be written. The promiscuous purchasing by the laity of this class of drugs must be stopped. A despondent or depressed person may obtain at present a sufficient amount to cause death with suicidal

intent. If a ruling were enacted prohibiting the sale of more than 10 grains within seven to ten days, the period of depression in many instances will have been dissipated by the end of this time and a useful person restored to his community. (McNally, Wm. D.: J. Michigan State Soc., August, 1942). The sale of barbiturates to the layman is regulated by twenty-seven states, and should be subjected to a rigid control in every state.

## GUNSHOT WOUND INVOLVING UPPER ABDOMEN AND LEFT KIDNEY

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CAPT., M.C., AUS

A 22-year old, white male, married, was admitted to the Station Hospital, April 30, 1943, forty-five minutes after he had suffered a through and through gunshot wound of the left upper abdomen. The bullet was of .30 caliber, fired at close range.

At the time of admission he was in deep shock and examination revealed the bullet wound of entry one-half inch below the left costal margin, anteriorly, in the mammary line. A bullet wound of exit was found one inch below the posterior costal margin, one and one-half inches to the right of the midscapular line. Blood pressure was 60 mm Hg, systolic; diastolic not found. A catheterized urine specimen was of port wine color.

An immediate laparotomy was performed, using intravenous Pentothal Sodium, and 500 c. c. of plasma was given intravenously. A left paramedian incision from the xiphoid to below the umbilicus was made and upon opening the peritoneum, large quantities of free blood were encountered. This was removed, and upon inspection of the stomach, a through and through perforation of this organ was found on the greater curvature. These perforations were closed with purse string suture and a further reinforcing Connell's stitch. The spleen was examined and found to be mushy, but not the site of violent hemorrhage. The left kidney was macerated, mushy, broken up, and tensely fluctuant, and first thought to be a hematoma; there was, however, little free blood in the kidney fossa. It was decided to allow the kidney to remain in place and to observe developments.

Blood pressure, pulse pressure and pulse rate were satisfactorily maintained throughout the operative procedure, the latter lasting approximately two hours. It was felt that the liberal use of plasma was the sole reason for the immediate excellent condition of this patient despite the long, shock-producing operation.

The wound of exit was given a thorough debridement, consisting of full excision of the skin and subcutaneous tissue, going one-half inch laterally in all directions and one inch deep. The wound of entry was included in the upper one-third of the celiotomy incision and was completely excised. The omentum had been pierced in five or six places, evidently having

been folded over on itself at the time of injury. The omental vessels were bleeding so profusely, that approximately one-third of the omentum had to be amputated. Individual ligation could have been performed, but it was believed that such a procedure would result in gangrene of this organ. A possible further complication, that of incarceration of bowel loops in the interstices, was thus avoided. Furthermore, the ligation of each vessel would have been time consuming, adding further traumatic shock to an already severely traumatized organism.

After inspection of the bowel from the ligament of Treitz to the ileo-cecal junction and the sprinkling of ten grams of sulfanilamide powder throughout the upper abdomen, the abdomen was closed in layers without drainage. Silk was not used except as a skin suture. At the termination of the laparotomy a transfusion of 500 c. c. of whole blood was given.

During closure of the skin it was noticed that the patient was developing an urticaria. No medication had been given other than morphine-sulphate, Gr.  $\frac{1}{4}$ ; atropine-sulphate, Gr.  $\frac{1}{150}$ , and plasma. It is not known by the author whether pentothal sodium acted as an urticaria-producing agent. Ephedrine sulphate, Gr.  $\frac{3}{4}$  was used to combat the complication.

Postoperatively the patient's condition remained critical for four days, during which time cyanosis of the extremities developed, and a temperature of over 101 degrees (oral) was maintained. These reactions were treated by continuous oxygen, administered by tent. Continuous Wangenstein suction was started immediately postoperatively, and fluid balance was maintained by the daily intravenous administration of 4000 c. c. of 10% dextrose in normal saline solution. A moist tongue, lips, skin, and satisfactory urinary output were secured by these measures. The urine continued bloody at all times, but there was a gradual lightening of color until May 15, when normal colored urine was passed and only microscopic erythrocytes were found thereafter in voided specimens.

It was decided to treat the perforated stomach as though a freshly perforated ulcer were present. Sippy diet without medication was begun on the fourth postoperative day and a regular diet was substituted on the fifteenth postoperative day.

The incision healed per primam and the sutures were removed on the tenth postoperative day.

Sodium sulfadiazine was given intravenously daily for four days, postoperatively, and on the fifth postoperative day sulfadiazine, one gram every four hours, was given by mouth. The drug was discontinued after a normal temperature had been maintained for three consecutive days.

The patient was up and out of bed in a chair when on the twenty-third postoperative day he was suddenly seized with nausea, vomiting, and recurrent severe upper abdominal pain, cramping in character. Rapid distention of the abdomen occurred. A flat x-ray film of the abdomen revealed an obstruction high up. Wangenstein nasal suction was immediately instituted and the colon emptied by one-two-three enemata.

Shortly afterwards an exploratory laparotomy was performed under general ether anesthesia, using a right paramedian incision from the xiphoid to below the umbilicus. The typical picture of acute intestinal obstruction, mechanical type, was found. Upon opening the peritoneum there was a gush of port wine colored fluid. Palpation of the intra-abdominal surfaces revealed the adherence of a six-inch portion of the jejunum to the peritoneal aspect of the left paramedian incision. This portion of the bowel was released by blunt dissection and the ragged edges of the bowel at the site of adherence were folded over, using fine catgut suture on an atraumatic needle, the suture line running longitudinally. An indirect transfusion of 500 c. c. whole blood was given on the operating table. The abdomen was then closed in layers, using catgut suture throughout, and two grams of sulfadiazine were sprinkled through the upper abdomen. The postoperative course remained smooth and uneventful, and the patient was up and around on the eleventh postoperative day, free of sutures and with a wound which had healed per primam. The Wangenstein drainage was completely removed on the fourth postoperative day.

On June 6, 1943, a P.S.P. test was done and 52% of total dye was eliminated. The N.P.N. value was found to be 34 mgm percent on the same day. Urinalysis showed albumin ranging from 4 plus on admission to consecutively negative tests on June 25, 1943.

X-ray examination and intravenous pyelograms done on June 18, approximately six weeks after injury, was unsatisfactory due to gas shadows and on June 28, the patient was returned to duty, although a series of erythrocyte and hemoglobin estimations showed a moderate degree of anemia.

On July 18, 1943, the patient was again admitted to the hospital, complaining of weakness, vertigo, nausea and sharp cramping pain low down in the left portion of the abdomen. Since discharge from the hospital in June, 1943, the patient had noticed that his stool had become like clay. On August 8, 1943, ova of endamoeba coli and endamoeba histolytica were found. Carbason treatment was begun and the stool specimen became negative and remained so on repeated examinations.

On July 21, 1943, intravenous urography was repeated and revealed a normal right kidney, but the inferior and medial portions of the left kidney did not fill and the left kidney was fixed in position. On July 30, 1943, a barium meal was given and confirmed the results of the inspection made at the time of the second celiotomy, i.e. a normal stomach and duodenum, despite a through and through puncture wound involving the anterior and posterior walls of the greater curvature. The only abnormality was marked spasticity of the ascending and transverse colon. The patient was returned to duty August 13, 1943, with a blood count of 5,480,000 and a hemoglobin of 104%; eosinophile count revealed one such cell.

The patient continued to do regular military duties until December 18, 1943, when he was again admitted

to the Station Hospital complaining of sharp, intermittent pain in the left flank, and nocturia one to two times a night for the past three months. Examination on December 18, was negative except for facial acne and a positive left Murphy punch sign.

Prior to this admission a competent urologist had been added to the staff of the Station Hospital, so, on December 20, 1943, bilateral retrograde pyelograms were made. The x-ray findings, following injection, showed a normal right kidney; normal superior calyx, left, with total absence of the mid and inferior calices. The remainder of the examination was negative. The blood counts were within normal limits and repeated stool examinations were consistently negative for ova and parasites. The patient weighed 135 pounds on admission; in July, 1943, the patient weighed 120 pounds.

### COMMENT

It is not the usual luck of an operator to get a chance to view a human stomach a second time, following a primary through and through gunshot wound. The surfaces were smooth, not puckered and the scarring was minimal. Adhesions were not seen at the sites of the puncture wound. It is also not the usual phenomenal luck of an operator to be allowed to palpate a kidney a second time following a gunshot wound of that organ. At the first palpation (at the time of primary laparotomy) the left kidney was tense and large and felt like cold, crusted cornmeal mush. At the second operation the kidney was surrounded by dense firm masses of adhesions and the renal outline was remarkably indistinct.

The author was never certain, until benign clinical conditions had asserted themselves after the primary laparotomy, that he had not missed multiple pinpoint perforations of the ileum and jejunum because multiple subserosal hemorrhagic areas were seen — and not touched. The liberal use of sodium sulfadiazine, intravenously, and sulfadiazine per os, carried the patient through the critical days and this writer reverently doffs his cap to the discoverer of this magic compound.

Morphine and atropine have lately been given to this patient without any ensuing urticaria. Therefore, it is reasonable to assume that the urticaria noticed during the first laparotomy was due to the plasma injected.

The patient suffered severe psychological shock during the time of his treatment for amoebiasis in that his wife ran off and left him, their six-months old child being cared for by the paternal grandparents. It is thought that this patient has had a sufficiency of demoralizing incidents occur in his recent years to ensure his right to his present apathetic, melancholic facies and inert disposition. He is, at the present writing, being subjected to high-calorie, high-vitamin diet, with additional vitamin products given by mouth, and rest. He is now an active member of our rehabilitation program.

### A SIMPLE QUALITATIVE TEST FOR SULFONAMIDE DRUGS IN URINE

In usual sulfa drug therapy from 200 to 350 mgm. per 100 cc. of the substance is excreted in the urine. Upon addition of 1 cc. of a 2% solution of paradimethylaminobenzaldehyde in 20% hydrochloric acid, to the urine of individuals receiving this therapy, a precipitate forms immediately.

If the specimen should contain less than 25 mgm. % a yellowish green color appears. In urine that has a concentration above 25 mgm. and less than 250 mgm. %, a yellow precipitate is seen. Over 250 mgm. % will produce a heavy orange precipitate. All of the concentrations given are in terms of free sulfonamides; the acetylated form is not detected by this method.

The test is best performed by the addition of 1 cc. of the paradimethylaminobenzaldehyde solution to 10 cc. of urine which has been cooled to room temperature. The method is unsuitable in patients who are jaundiced or contain abnormal amounts of urobilinogen in the urine.

Several compounds will give positive reactions, but these are never given in sufficient quantities to produce a positive reaction when excreted in the urine.

The testing solution is kept best in a dark container. The aldehyde may be purchased from the Eastman Kodak Company of Rochester, New York.—*Raymond W. Monto, M.D., Journal of the Michigan State Medical Society, July, 41: 569, 1942.*

### ANTS SPREAD DYSENTERY

Ants that get into the sugar bowl or other food, usually considered a harmless pest of tropical regions, are now incriminated as villains that probably spread dysentery, one of the disease scourges of the tropics which are a special danger to Armies fighting in tropical regions.

Experiments in which ants actually did carry dysentery germs on their feet, leaving a 24-hour trail of the germs, wherever they walked, are reported by Dr. Sophie Deller Griffiths, of the School of Tropical Medicine at San Juan, Puerto Rico.—*Science News Letter, September 26, 1942.*



JANUARY 14-31

# Physical Medicine Abstracts

John S. Coulter, M.D.

## POSTURAL ADJUSTMENTS IN CONVALESCENCE AND REHABILITATION

F. A. Hellebrandt, Section of Physical Medicine and the Department of Physiology, University of Wisconsin, Madison.

FEDERATION PROCEEDINGS, 3; 3; 245  
September, 1944

No one has yet succeeded in demonstrating that poor bodily mechanics augment energy metabolism significantly. Increased rotatory stresses secondary to the assumption of mechanically poor postures are equilibrated with ease. To correct such stances would require the strong phasic contraction of the antigravity extensors. Indeed, when "poor" postures are examined from a biologic rather than a mechanistic viewpoint, they appear to be compensatory. They are the stances requiring the least energy for their maintenance.

Two additional arguments have been used to condemn mechanically poor postural adjustments. Since they throw the weight of superimposed parts on structures not suited to maintain them, they may give rise to a type of micro-trauma which may lead to pathological deviations from the normal which may be associated with pain. Thus the application of mechanical supports or devices aimed at a re-distribution of weight, often relieve incapacitating discomfort. Many so-called poor postures are disfiguring without being the source of pain.

Many years ago Goldthwaite postulated an anatomico-mechanistic basis for chronic ills related to the visceral functions. The literature on this subject is voluminous and uncritical. The flat chest, abdominal visceroptosis, and crowding of the pelvic organs of the individual with poor posture are credited with a leading role in the pathogenesis of innumerable diseases.

This concept is based upon more or less tenuous evidence without regard for the wide margins of safety under which all organ systems function, and the paucity of proof that the anatomical position of a viscus is a valid criterion of the adequacy of its physiological behavior.

The rehabilitation of the postural adjustments of the sick and injured gives rise to several fundamental problems which have yet to be explored. Those secondary to traumatic lesions of the bony levers and their articulations are too individual for generalization. The orthopedic surgeon, the skilled craftsmen who construct orthopedic appliances, and the physical therapy technician form a team well equipped to handle these purely mechanical problems. How amenable postural adjustments are to correction in patients suffering from functional diseases or psychosomatic disturbances is unknown. Long hospitalization because of debilitating intoxications, infectious, deficiency, or metabolic diseases have a uniform effect on the postural adjustments. Inactivity is invariably associated with loss of strength and tone.

The technique of muscle re-education is a topic of current controversy. The individuation of desired skills from mass responses is the natural method of motor learning. The newer approach consists of the meticulous building of increasingly complex patterns of movement from the carefully learned primary actions of isolated muscles or small groups.

Poor posture was credited with responsibility for the breakdown of men under the stress of battle conditions during the last war. This gave rise to considerable attention to the problems of body mechanics. As a result posture training has been practiced extensively in the schools of

this country during the interim between the last and the present war. Whether or not this has had a telling effect upon the bearing of our youth awaits full publication and study of the medical data of selective service boards.

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### THEORETICAL AND EXPERIMENTAL ASPECTS OF SURGICAL REFRIGERATION

Frederick M. Allen, M.D., New York City, N.Y. In  
THE CANADIAN MEDICAL ASSOCIATION  
JOURNAL, 51; 3; 225 September, 1944.

This general or systemic hypothermia cannot be further discussed because our topic centers around local hypothermia. The reaction when any part of a warm-blooded animal is exposed to cold is both complex and variable according to many modifications of degree and kind. The well-known vasoconstriction with pallor gives way to vasodilation, and the chilled part is apt to be bright pink from this cause and from the high oxygen content of the blood. Increased vascular permeability, with passage of fluid into the tissues, is regarded as a defensive process reducing the thermal conductivity of the tissues, and in extreme form it is a factor in the oedema found in frost-bite and immersion-foot.

The effects of a tourniquet depend on the material, breadth, tension, time and temperature. Hard or inelastic materials, such as wire, cord, fabric or stiff rubber, create troubles either by looseness or by crushing of tissue. Breadth adds to the area of compressed tissue without reducing the degree of tension necessary for stopping blood flow. For these reasons we use two superimposed turns of a 1/2-inch soft rubber tube, until an ideal air-pressure instrument may be found. The tension should theoretically be the minimum which will positively stop circulation. In practice, errors are usually on the side of insufficient tension. The very strong tension which is necessary in the leg seems to cause no harm, even in advanced arteriosclerosis. Paralysis is more easily produced in the arm, and padding may be helpful to prevent direct crushing of the principal nerves against bone. The time factor has been grossly misjudged by surgeons in the past. The limbs of animals and apparently also of human beings can survive 12 to 15 hours of complete asphyxia at ordinary room temperatures.

Refrigeration with a tourniquet has mainly been used and is most familiar as an anaesthetic for amputations in poor-risk patient.

Passing on to another surgical problem, namely thrombosis and embolism, I wish to venture some new suggestions regarding treatment. The benefits of refrigeration for preventing or retarding gangrene and gaining time for development of collateral circulation and for constitutional recovery from a crisis are illustrated in the embolic cases of Crossman and co-workers, and the reports of Mock on traumatic thrombosis in civil life, and of Bowers, in soldiers.

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### A NEW NEUROSURGICAL INSTRUMENT

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#### A Combined Suction and Electro- coagulation Tip

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Henry T. Wycis, M.D., Instructor in Neurosurgery,  
Temple University Hospital, Philadelphia, Pennsylv-  
vania. In THE AMERICAN JOURNAL OF  
SURGERY, 67; 1; 139, October, 1944.

This instrument was designed to coagulate bleeding points quickly and effectively, particularly those in the depths of a tumor bed. Not infrequently, the operator encounters a serious bleeder which fills the cavity and obstructs the field of vision. The cavity must be sucked dry to locate the bleeding point which is then grasped with a bayonet forceps. The operator then usually asks the assistant to touch the forceps with the electrocoagulation tip. This maneuver must be executed quickly and requires proper timing between operator and assistant. This is not always successful as many neurosurgeons can testify.

The instrument presented combines suction and electrocoagulation so that the operator, with a single hand, can carry out this maneuver. Obviously, this releases one of the valuable hands of the assistant. With suction on the bleeding point, the vessel can be sucked up into the opening of the tip, rendering the field dry. Simultaneously, the foot switch allows the electrocoagulating current to coagulate the vessel drawn up into the suction tip opening. Should this be undesirable, the instrument may be simply touched to the bayonet forceps, which can grasp the vessel in a dry field.

## ELECTRIC SHOCK THERAPY IN A GENERAL HOSPITAL

Thomas Johannes Heldt, M.D.; Daniel David Hurst, M.D., and Nicholas Peter Dallis, M.D., Detroit. In *ARCHIVES OF INTERNAL MEDICINE*, 73;4:-340, April 1, 1944

There has been sustained interest in the shock therapies since 1932, when Sakel introduced insulin coma for schizophrenia. Its use for several years was rather empiric, and today it is used only in selected cases. In 1935 Meduna added metrazol convulsive therapy to the treatment of schizophrenia. It was soon found, however, to be most effective for the depressed states, particularly the reactive depressions. It was heralded as a specific for the depressions but was frowned on because of its orthopedic complications and the fears patients expressed toward it.

The purpose of this paper is to review the present status of electric shock therapy and to present an additional 100 cases.

### SUMMARY AND CONCLUSIONS

General hospitals with neuropsychiatric facilities can utilize electric shock therapy to advantage. In a general hospital of six hundred beds 100 patients were successfully treated over a period of eleven months.

Electric shock therapy has largely replaced metrazol convulsive therapy. It appears to be almost a specific therapy in the treatment of the depressions whether they are endogenous, involutional or reactive or depressions with mixed components. The therapy is not of great value for schizophrenia, although it does seem to make many of the patients more manageable. Its use for the manic-depressive psychoses is primarily to facilitate management. The use of this therapy for frequent recurrences of this psychosis is questionable. For the psychoneuroses the results are rather discouraging, probably because the underlying determinant must be removed to relieve the psychoneurotic state properly; electric shock is judged to be of some benefit in facilitating the psychotherapeutic approach.

Curare was used routinely in the treatment of our 100 patients. The only serious complication was compression fracture of the thoracic portion of the spine. This occurred in only 2 cases, and in 1 of these the fracture occurred when the curare was unwittingly omitted after it had been used in earlier administrations.

## ARTIFICIAL RESPIRATION

### The Need for a Greatly Increased Rate in Asphyxia.

P. R. Tingley, M.B., Ch.B. In *BRITISH MEDICAL JOURNAL*, No. 4367: 367, September 16, 1944.

In every method the present rate is slow. Four seconds is a long time when applied to one respiratory cycle. Indeed, in most methods it has been necessary to include a pause of one to two seconds in each cycle in order to keep the rate down to the so-called normal. In Schafer's the interval is at the end of the inspiration; in Eve's it is at the end of the expiration.

In Schafer's method it is difficult to occupy fully even three seconds with the actual movements necessary for one cycle.

Silvester's method, because of the nature of the movements necessary, takes more time to perform than Schafer's, and a rate of about 45 times a minute would seem to be the efficient maximum. My limited experience of Eve's method does not permit me to suggest the most suitable rate, but the same rule holds true — "as fast as possible consistent with no sacrifice in volume" — and I have little doubt that the efficient rate of rocking could at least be doubled, and probably much further increased.

### CONCLUSION

The respiratory requirements are so great in all cases of asphyxia which require artificial respiration that, in such cases, the adoption in all methods of as fast a rate as possible, consistent with efficiency, must result in the quicker resuscitation of the patient, thereby enhancing the chances of life.

## EFFECTIVENESS OF ULTRAVIOLET IR- RADIATION OF UPPER AIR FOR THE CONTROL OF BACTERIAL AIR CONTAMINATION IN SLEEPING QUARTERS

Preliminary Report by R. Schneiter, A. Hollaender, B. H. Caminita, R. W. Kolb, H. F. Fraser, H. G. DuBuy, P. A. Neal and H. B. Rosenblum. In *THE AMERICAN JOURNAL OF HYGIENE*, 40;2:153,

September, 1944.

Ultraviolet radiation (2537A) has been reported to be effective for the control of airborne contagion in operating rooms and hospital wards when used directly over the operating

table or as light barriers in the wards. Ultraviolet irradiation of the upper air of children's nurseries and of school rooms has also been reported to be effective in reducing the incidence of air-borne infections among the populations concerned without subjecting them to possible injury from direct ultraviolet rays. This work has been thoroughly reviewed (2, 4, 6, 9, 10) and need not be discussed further here.

No reports have appeared on the use of ultraviolet irradiation for the control of air-borne infection in sleeping quarters. At a time when large numbers of people are being congregated under conditions considered to be conducive to the spread of air-borne infection, it seemed desirable to try to determine the effect of ultraviolet irradiation upon the bacterial flora of large-scale sleeping quarters and upon the incidence of air-borne infections among the occupants.

#### SUMMARY

During the period from July 1st, 1941 to July 1st, 1943, an investigation was carried out on the effectiveness of upper air ultraviolet irradiation for the control of air-borne microorganisms and air-borne infections in the sleeping quarters of 4 dormitories at the National Training School for Boys, Washington, D. C. Ventilation depended upon the opening or closing of windows.

Two of the dormitories were equipped with ultraviolet sources for upper air irradiation and the remaining two dormitories served as controls. A total of 90,000 milliwatts of 2537A radiation was provided in each irradiated dormitory for 18 months of the study. The radiation at bed level was found to vary from 0.5 to 3.0 ergs per  $\text{cm}^2$  per second when all lights were clean and in operation. Therefore, it may be said that at no time did the intensity of ultraviolet radiation at bed level exceed 5 ergs per  $\text{cm}^2$  per second.

Bacteriological studies were made at monthly intervals. Nasal swab cultures were taken from 10 boys in each of the 4 dormitories each time that studies were made in order to ascertain the predominating type of nasal flora of the in-

mates. Air samples were taken with the bottle device and by the exposed plate method at two locations in each dormitory, once in the early evening and twice in the early morning. Intermediate air samples were obtained during the early evening from 9:30 to 10:30 P.M. soon after the inmates had retired, the lowest counts in the early morning at 5:15 to 6:15 A.M. after an extended period of quiet, and the highest counts from 6:15 to 7:15 A.M. during cleaning and bed-making operations, or during the period of maximum human activity. The air-sample counts were thus roughly proportional to the activity within each dormitory at the time of sampling.

A bacteriological examination was made on floor-dust samples collected in each dormitory during cleaning operations. The incidence of microorganisms in the floor-dust samples was higher in the spring and summer months than in the fall and winter months. There was no consistent correlation between incidence of viable microorganisms in floor-dust samples and in air samples collected during cleaning and bed-making operations.

The predominating types of microorganisms encountered in nasal swab cultures, air samples and floor-dust samples throughout the major portion of this investigation were staphylococci. However, during the 5-month period from June to October, 1942, streptococci predominated in the majority of the cultures and samples.

The data obtained during this investigation indicate that ultraviolet irradiation of the upper air of sleeping quarters effected a reduction in the numbers of viable microorganisms in the air, and, to a lesser degree, in floor-dust.

The incidence of air-borne diseases, as judged by hospital admission records, in nonirradiated and irradiated dormitories showed no significant difference under the conditions of this experiment. The variation among dormitories was so great that no statement can be made concerning the influence of ultraviolet light upon the incidence of air-borne infection insofar as these experiments are concerned.



# Industrial Health

Committee On Industrial Health — Frederick W. Slobe, Chm., 2024 South Western Ave., Chicago, Frank P. Hammond, H. A. Vonachen, R. I. Barickman, C. O. Sappington, Milton H. Kronenberg.

## GENERAL MEDICAL COVERAGE FOR INDUSTRIAL EMPLOYEES\*

Recently in THE JOURNAL a series of articles was published describing some of the variations in approach which representative industries have made to the problem of general medical coverage for their member-employees. The Council on Industrial Health, in recognition of this trend, has adopted a statement of policy which should be helpful to physicians and medical societies faced with these developments. This statement, as approved by the Board of Trustees of the American Medical Association, is as follows:

Pressure is being placed on industry by management and by labor to extend the health services for which it is responsible. It has been recognized that industry has certain responsibilities in providing medical care for occupational injuries and diseases. These responsibilities have been extended to include various services in the field of preventive medicine. It is now proposed that industry provide over-all medical care for employees and their dependents, the term medical being used in a broad sense to include diagnosis and treatment in various special fields. The Council on Industrial Health believes that a statement along the following lines bearing the stamp of approval of the American Medical Association will be of assistance to physicians who are now confronted with this situation in many areas:

1. The principles on which medical care plans should be based have been defined by the House of Delegates of the American Medical Association. In developing medical care plans, industry should be in agreement with the local county medical society as to the conformity of such plans with these established principles. Plans of this nature should include provision for health maintenance programs.

2. Because of the essential medical nature of such plans, their policies should be directed and the medical

phases should be controlled by the medical departments of industry.

3. The attention of industrial management should be directed to the place of the physician in industrial organization. The expanding importance of health activities in industry demands that the physician be responsible directly to top management and that activities relating to health be centered in and directed through the medical department.

## UNJUSTIFIABLE ABSENTEEISM

Since the occurrence of the manpower shortage, much study has been directed towards the various factors concerned in industrial absenteeism. This Department has discussed this matter before, but there is one pertinent factor which we would like to re-emphasize.

Absenteeism in industry seems to rise in direct proportion with the income, hours of work, and availability of jobs for the employee. Since only physicians can decide whether absenteeism is justified due to illness or injury, we are glad to reprint a recent editorial from the Journal of the A. M. A.:

## MEDICAL CERTIFICATES AND WAR PRODUCTION\*

In recent years medical certificates have been required for fuel and food rationing, public health disease prevention programs, food handler control, marriage laws, school regulation and sickness insurance. The good name of the medical profession is sometimes jeopardized by too lenient compliance with appeals for certificates from patients who have little or no real basis for requesting them. This problem is now especially concerned in present efforts to use limited manpower to its fullest extent in war industries.

Production of munitions would be far from

\*J.A.M.A. Nov. 11, 1944

\*J.A.M.A. Nov. 11, 1944

completed even if Germany should capitulate this month. According to War Department announcements, production of heavy trucks, large shells, bombs, rockets, smokeless powder, heavy duty tires, superbombers and large artillery is behind schedule for 1944. These activities must be continued for many months to come if urgent orders from overseas are to be met. The major problem in the production of these critical items is lack of manpower. Lack of labor reserves in many communities, excessive absenteeism and a high rate of labor termination are the controlling factors in producing enough munitions on time. Certain ordnance plants have reported absenteeism amounting to twenty days annually per man and an annual labor turnover of 100 per cent. Many of these absentees and job terminators can be replaced only with the greatest difficulty.

Many observers believe that the principal underlying cause is the too common attitude that the war is almost over. The feeling of urgency is gone. Liberal disability benefits contribute to these delays. Others who drop out for a few days of hunting or to get in the crops cheerfully extend an unjustified absence and cover up by alleging illness on return to work. Job quitters likewise are more common than ever because of their understandable desire to obtain more permanent work before present jobs terminate.

Industry, labor organizations, the War Manpower Commission and other interested agencies have instituted an aggressive plan of action to control the ordinary causes of absenteeism and labor turnovers by giving attention to such factors as housing, transportation, shopping facilities, cafeterias, child care and impressing the workers with the urgency of staying on the job.

Illness, both alleged and real, as a frequent cause of absenteeism and work termination is probably the most difficult problem to control by lay agencies. The government and its contracting agents customarily require medical certificates to cover an absenteeism alleged to illness or a labor termination attributed to reasons of health. The medical profession is then put under pressure by thoughtless persons who see little harm in collecting disability benefits or in obtaining better jobs on pretext of illness. They fail to see the cumulative results of hun-

dreds of thousands of such acts on critical war production.

Responsibility rests squarely on the physician to act as prosecutor, defense attorney and judge before issuing such a certificate. He fails himself, his profession and the war effort if certificates are issued without due cause. The Army is prepared to cooperate closely with physicians in industry in order to accumulate facts about alleged illness of an employee and the possible effects of the working environment on the employees' health. Standard practices for the control of health hazards in war industries are available. The medical records of employees and diagnostic services of these plants are generally available to private physicians in troublesome cases and should be utilized fully.

The medical profession is never out of the public eye. The ability of any group of workers persistently to evade the obligations of their jobs through easy availability of medical certificates must inevitably arouse unfavorable public reaction. The War Participation Committee of the Massachusetts Medical Society has established a system for review of medical certificates in that state worthy of general consideration. Every physician must assure himself that each medical certificate is exactly what it implies — a certified statement of facts based on careful examination and disinterested judgment.

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In the July 1944 Industrial Hygiene News Letter, published by the Industrial Hygiene Division, U. S. Public Health Service, Bethesda, Maryland, the following articles appear, relative to various chemical hazards in industry.

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#### LABELLING OF CHEMICALS

As one means of controlling industrial exposures to hazardous chemicals, the Surgeon General of the U. S. Public Health Service has made agreements with the chemical manufacturing companies regarding the labelling of certain dangerous chemicals handled in interstate commerce. To facilitate arriving at these labelling agreements, the Chemical Products Agreement Committee was formed under the chairmanship of the Chief of the Industrial Hygiene Division and included in its membership the Chief Chemist, Health Division, U. S. Bureau of Mines Experimental Station, the Chief of the Indus-

trial Research Laboratory, National Institute of Health, and the Executive Secretary of the Manufacturing Chemists Association. To date, labelling agreements have been made regarding six compounds; namely, methanol, benzol, aniline, carbon tetrachloride, carbon disulfide and chlorinated diphenyls.

The Chemical Products Agreement Committee met with representatives of the American Industrial Hygiene Association in Bethesda on July 12, 1944, to discuss standardization of labelling of other chemical products. A revised draft for classification of chemical products for precautionary labelling, prepared by the Labels and Precautionary Information Committee of the Manufacturing Chemists Association, was presented. This was a classification of hazards rather than of chemicals. Phraseology of the various labels to be used must be determined next. Comments and observations on the preliminary draft will be submitted to the Manufacturing Chemists Association.

In discussion of the complaint that chemical formulas are not included on the labels of trade name products, it was decided that the "Trade Names Index" now being prepared by the Field Operations Section of this Division, will help solve this problem insofar as official industrial hygienists are concerned.

The problem of labelling cadmium plated materials was discussed and it was decided to supplement any labelling program by educational measures. The consultant, Metals Branch, Conservation Division, War Production Board, will be requested to publish abstracts of publications regarding cadmium in electroplating trade journals, calling attention to the hazard to workers with cadmium plate as well as the users of cadmium utensils.

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#### CHLORINE GAS HAZARDS IN ALUMINUM FOUNDRIES

The chlorine hazards in aluminum foundries have been shown by a study made in California to be threefold.

(1) Aluminum readily combines with the oxygen in water, releasing hydrogen gas which

collects in the interstices or porosities of aluminum in the melting pot. This gas is generally removed by passing chlorine through the molten metal so that the hydrogen combines with the chlorine to form hydrochloric acid. The excess chlorine is discharged into the atmosphere above the melting pot, unless removed by an exhaust hood, but the hood must be properly designed, or only a portion of the gas is removed.

(2) The chlorine gas is introduced into the bottom of the melting pot by pipes connected to the tanks by short lengths of rubber hose. These pipes may become clogged as the chlorine tanks are moved from pot to pot. As the full tank pressure may exceed 100 pounds per square inch, the rubber hose may leak or burst. Moreover, a chlorine tank may burst from overheating or from being tipped over, causing a fatality.

(3) Gas burners under the melting pot are frequently unvented, so that carbon monoxide concentrations may be as high as 50 to 75 parts per million and, as phosgene is readily formed from a combination of carbon monoxide and chlorine, there is danger of both carbon monoxide and phosgene poisoning.

Proper protection of the workmen requires a rather complicated system of control, consisting of venting of all gas burning devices, as well as much greater supervision of the method in which chlorine is handled.

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#### WELDING FUMES FROM STAINLESS STEEL WELDING RODS

A study was made in California of the types of fumes to which welders are exposed as the result of using coated stainless steel welding rods in the manufacture of amphibian tanks. Results of analyses of samples indicated not only high concentrations of chromate, as was expected, but also high concentrations of fluoride, total fume and oxides of nitrogen. In view of the fact that complaints of gastro-intestinal disturbances were more common than of respiratory irritation, these findings indicated that this non-specific subjective reaction might be due to the simultaneous occurrence of several irritating ingredients, rather than the specific effects of any one of them individually.



# VITAMIN SUPPLEMENTS ARE FOUND OF NO VALUE FOR NORMAL PERSONS

Their Administration To Group Of Students Consuming Usual American Diet Had No Demonstrable Beneficial Effect

"Administration of vitamin supplements to a group of apparently normal persons, consuming the usual American diet, had no demonstrable beneficial effect," Julian M. Ruffin, M.D., and David Cayer, M.D., Durham, N. C., report in *The Journal of the American Medical Association* for November 25. The study was conducted at the Duke University School of Medicine at the request of the Office of the Quartermaster General, U. S. Army. Volunteer medical students and technicians were used as subjects.

"Our purpose in this study," the two physicians say, "was to obtain impartial and intelligent daily records of the effect of various vitamin supplements on apparently normal persons. It was felt that in such a study medical students would be not only cooperative but critical as well. The duration of the experiment was set arbitrarily at thirty days. In our experience, patients having frank deficiencies recover rapidly when specific therapy is instituted. It is reasonable to assume that a subclinical deficiency should respond just as promptly to treatment, and therefore it was felt that nothing would be gained by prolonging the experiment.

"All of the subjects were consuming the usual American diet and apparently were in good health. Before beginning the experiment 20 of them, selected at random, had vitamin studies made, including the determination of carotene, vitamins A and C, nicotinic acid, thiamine hydrochloride, riboflavin, pyridoxine, pantothenic acid and prothrombin time. All of these were within normal limits."

In the introduction to their paper, Drs. Ruffin and Cayer explain that "At the present time the use of vitamins is widespread throughout the country, not only in the treatment of disease, but also by apparently normal persons. While no one would question the employment of vitamin therapy in frank deficiency diseases or even in suspected deficiency states, still one wonders if the indiscriminate use of vitamins, sold over the counter to people who have no obvious disease, is justified. It has been argued that such vague symptoms as weakness, nervousness, fatigability and insomnia can result from a vitamin deficiency and therefore, when such symptoms appear, vitamin therapy should be instituted. Recent surveys, with the recommended daily allowances of the National Research Council as a guide, have indicated that the average American diet often is not adequate to maintain optimal nutrition. This has been used as an additional argument for the administration of vitamins to people without obvious disease on the assumption that they may actually have a 'subclinical deficiency' of which they are not aware. It has been implied that, even when no demonstrable deficiency exists, one's sense of well-being and ability to perform work can be improved greatly by the addition of vitamins to the diet.

As pointed out by the Councils on Food and Nutrition and on Industrial Health there is at present no conclusive evidence to substantiate this point of view. . ."

All of those participating in the study continued their usual activities and ate essentially the same diet. Each subject was given a work sheet to be kept daily and was instructed to record his impression as to the effect of the medication he was taking on the appetite, energy and "pep," general health, "gas" or indigestion, nausea, vomiting, the number of stools per day, abdominal pain and weight. No subject knew what he was receiving or to what group he belonged. At the beginning of the experiment they were told that one group would receive placebos (sugar pills) and the remainder various vitamins. There were 200 subjects selected for the investigation. Reliable data were obtained from 182. The subjects were divided into five groups. Those in group A received 3 vitamin tablets per day and 6 liver extract tablets. Those in group B received 3 vitamin tablets per day and 6 yeast tablets. Those in group C received 3 vitamin tablets per day and 6 placebos per day. Those in group D received 3 vitamin tablets per day and those in group E received 6 placebos per day. The supplements used were of the same size and appearance so that identification was difficult, if not impossible, without chemical analysis.

The vitamin tablets, which were the usual government issue and furnished by the Office of the Quartermaster General, contained 2,500 U. S. P. units of vitamin A, 200 U. S. P. units of vitamin D, 1 mg. of thiamine hydrochloride, 1.5 mg. of riboflavin, 27.5 mg. of ascorbic acid, and 10 mg. of nicotinamide.

In analyzing the results, it was found that in regard to appetite 6 in group A reported improvement and 31 no change. In group B, 3 reported improvement, 32 no change and 3 a decrease. In group C, 9 reported an improvement, 24 no change and 2 a decrease. In group D, 5 reported an improvement, 28 no change and 2 a decrease. In group E, which received only the placebos, 5 reported an improvement, 29 no change and 1 a decrease. About the same ratio between the various groups was reported in regard to the other classifications.

**Specialists Outnumber General Practitioners**—As of January 31, 1942, 85,964 of these were in general practice and 90,227 specialists (including those classified as fully qualified specialists devoting their full time to a specialty and physicians who devote only special attention or a part of their time to some special branch of medicine). The ratio of full-time specialists to special attention physicians is about forty-three to fifty-seven.

The total number of physicians engaged in full-time appointments was found to be 7,216. Of these, 2,816 hold teaching appointments, 910 are engaged in full-time research work, 1,179 hold executive positions and 2,243 are engaged in full-time work in industry. Many of the latter are not actually caring for the sick or injured though they are contributing to the health of the industrial population.—*Minnesota Medicine*.

# News of the State

## PERSONALS · COMING EVENTS · MARRIAGES · DEATHS

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### ★ WAR SERVICE ACTIVITIES ★

#### ADAMS COUNTY

Capt. H. O. Ryan, 98th Evac. Hosp., APO 926, c/o Postmaster, San Francisco, former Quincy physician writes that he is now located somewhere in the Dutch East Indies. Captain Ryan is a member of the Adams County Medical Society, and expresses his appreciation for the Society's monthly Bulletin which is sent to him. He states that he is in charge of a tropical disease ward (mostly malaria, deruge and scrub typhus); also that there is absolutely nothing to buy on the island except postage stamps.

Capt. Carl F. H. Pfeiffer is another widely-known Quincy physician in the service, having been a member of the Blessing Hospital staff before his enlistment in the Army Air Force December 2, 1942. He is now located in southern England in that section which has been hard hit by robot bombs flung across the channel by Germany, and states that one bomb may damage as many as 150 or more homes, but that the number of casualties is miraculously small compared to the extent of damage done. Capt. Pfeiffer has been overseas since the first of the year.

Capt. C. A. Hendricks, M.C. and Lt. George Borden, M.C. have both written to Dr. R. A. Harris, Quincy, Illinois, Editor of the Adams County Medical Society Bulletin, and expressed their appreciation and thanks for the Bulletin. Captain Hendricks is in England. Lt. Borden's location is not known, except that his APO is New York.

Maj. S. R. Hoover of Quincy has returned to this country after having served one year in Africa with the medical corps. He has been sent to Miami, Florida, for reassignment.

Maj. Walter Stevenson, Jr., M.C., of Quincy

is in charge of plastic surgery at McCloskey General Hospital, Temple, Texas. He writes that casualties are flown in direct from points abroad for plastic surgery care.

#### CLAY COUNTY

L. L. Hutchins of Clay County, Captain in the Medical Corps of the U. S. Army is on convoy duty. M. H. Parker of Flora, Captain also in the Medical Corps is in the South Pacific and Major Howard B. Dillman of Flora is serving with the Army Medical Corps in Texas.

#### COOK COUNTY

The following promotions have just been announced, Milton William Eisenstein, Benjamin Boshes of Chicago and Ralph Homer Fouser of Oak Park have been promoted from Majors to Lt. Colonels.

Word has been received that Captain Bernard J. Weiberg is in Germany and Captains Paolo Ravenna, Norman Leshin, Herbert Binswanger, Lawrence L. Breslow and Ben G. Fishkin are in France. All are from Chicago.

Major A. A. Freedman of Chicago has sent the following V-mail to the Illinois Medical Journal.

"Will you kindly send future copies of the Journal to the address given below? This will facilitate delivery.

"Contact to things back home in the medical field is maintained thru the medium of the Journal. I receive each copy knowing that its reading will bring me much pleasure.

"I had the good fortune to "bump into" my brother, Capt. Bernard S. Freedman, M. C. here in France. We met under very peculiar circumstances, details withheld by censor's request. He is also an Illinois M.D.

"After several months at an Army Exhaustion center as neuro-psychiatric consultant, I am

back to my hospital unit as chief of the Neuropsychiatric service here.

"Thank you for noting my recent change of A.P.O."

The Chicago Tribune for November 5th carried two interesting stories concerning hospitals on Leyte Island and on the outskirts of Paris. The story of the hospital on Leyte Island concerned the strafing by Jap planes and the work done by Captain Edmund Pisarski of 3917 W. 59th Place, Chicago and Captain Roy Hohman of 7133 Yale Avenue, Chicago. The 108th Army General Hospital, now established in the outskirts of Paris, France is the story of one of the largest single hospital units of the war. Sponsored by Loyola university, the hospital's personnel consists of doctors and dentists from schools of the university, nurses from Loyola's affiliated hospitals and enlisted men, many of whom are former Loyola university students. Lt. Col. William J. Vynalek, Riverside, wrote from France that the medical unit started work at the Clinchy location September 1st with seven operating tables in use day and night.

Governor Green and high ranking army and navy officers and prominent doctors officially dedicated the Veteran's Rehabilitation Center, 2449 Washington Boulevard, on November 3rd. This is a state institution for the treatment of World War II veterans suffering from nervous disabilities. The center, a project of the governor's committee on veterans' rehabilitation and employment, is operated by the Chicago Community clinic of the Illinois department of public welfare. It will provide diagnosis and treatment for any service man suffering from nervous disorders and will aid in the reemployment of the veteran at the conclusion of the treatments.

The American 27th Evacuation Hospital in southern France was activated at the University of Illinois, Chicago in October 1942 and has followed the army through maneuvers in Tennessee and West Virginia, through the fierce Italian campaigns between Cassino and Pisa. The commanding officer is Col. Charles B. Puestow of Highland Park, formerly professor of Surgery at the University of Illinois College of Medicine. The hospital's medical and nursing staff was recruited from the university and men and women from Chicago, Peoria, Kankakee, Ottawa, Effingham, Champaign and other Illinois cities and towns make up the bulk of the roster.

#### DE KALB COUNTY

The Secretary of De Kalb County Medical Society reports the following members in the armed forces: Lt. Paul Bergstrom, U. S. Navy;

Captain Paul W. Carney, Army Air Corps in France; Captain John F. Eggers; Lt. Commander Carl E. Clark, Great Lakes Naval Station; Captain Bernard F. Howland, now in France; Lt. Robert S. Keller; Lt. Edward W. Levey; Major Ralph G. McAllister, now in Italy; Lt. Commander Caryl L. Nelson, U. S. Navy; Lt. Solomon Scholnik; Lt. Commander Howard E. Spafford with the Seabees in Alaska and Aleutians; Capt. Grant Suttie now in foreign service; Major E. W. Telford, stationed in France.

Mrs. Roland O. Sala of Rock Island whose husband Commander Sala, former Rock Island physician, was head surgeon on board the aircraft carrier U. S. S. Princeton, sunk October 25th after a clash with the Jap fleet near the Philippines, has received a message from her husband that he was safe on a destroyer with no permanent injuries. He reported that he had managed to save his pocketbook, but with the exception of the clothes he was wearing, lost all his equipment.

### GENERAL

#### ADAMS COUNTY

John G. Franken of Chandlerville was recently made a member of the Fifty Year Club of the Illinois State Medical Society. Dr. Franken was born in Hanover, Germany, on September 3, 1863. In the fall of 1880, he came to the United States to Chandlerville. He attended college at Valparaiso, Indiana, learning the English language and prepared himself for the teaching profession. He taught in the county schools several years, and then entered the Medical Department of the University of Illinois, and the old P & S at Chicago, graduating therefrom in 1895. Since that time he has been located in Chandlerville as a physician and surgeon. Dr. Walter Stevenson of Quincy, Councilor of the Sixth District, presented the certificate of membership in the Fifty Year Club to Dr. Franken and also gave a congratulatory talk. (Since this news item was received, word has come of Dr. Franken's death which occurred on November 26.)

The Adams County Medical Society has had some very interesting presentations at its monthly meetings. Willard O. Thompson of Chicago was guest speaker at the October meeting, his subject being "Recent Advances in Endocrinology". Percy E. Hopkins of Chicago spoke at the November meeting, his subject being "Surgery of the Gall Bladder and Biliary Tract."

#### BOND COUNTY

H. D. Cartmell of Greenville has recently

moved to Chicago and is connected with the Lumberman's Insurance Company of Chicago.

W. L. Hall of Greenville has recently undergone a very serious operation for ear trouble and has just returned to his practice.

Members of Bond County Medical Society are attending meetings of the neighboring county medical societies as their group is too small to have any major programs.

#### CLAY COUNTY

Members of the Clay County Medical Society met at the home of Dr. Curtis Henderson, Clay City on the evening of November 8th.

N. W. Bowman of Flora has gone to California for a rest and visit.

#### CLINTON COUNTY

Members of Clinton County Medical Society met at the hospital in Breese at 12:30 P. M. on November 7th. Ten members out of a total membership of twelve in the county were present. After a fine dinner served by the sisters at the hospital, the scientific program was presented by C. Malone Stroud of St. Louis talking on "Allergy" and M. F. Arbuckle of St. Louis who discussed the "Close Relationship of Allergy and Sinus Trouble." A general discussion followed.

The Clinton County Medical Society holds ten meetings during the year. The average attendance during the past year has been ten, out of a resident membership of twelve. We ask if any other county in the state can equal that record, and especially any other county in the seventh district. The Society has three members in the armed forces, all are in foreign service.

#### COOK COUNTY

There are approximately 65 members of the South Chicago Branch of the Chicago Medical Society now in the armed forces.

The first meeting of the year of the South Chicago Branch was held at the Jackson Park Hospital, October 24 when a Symposium on Penicillin was presented by Ralph Dolkart, Assistant in Medicine at Northwestern University School of Medicine and John T. Reynolds, Assistant Professor of Surgery, University of Illinois College of Medicine. Fifty members attended the meeting. The November 28th meeting was held at the South Shore Hospital and the Annual Stag Party was held at the Swedish Club on December 6th. The program was of a military nature, sponsored by Colonel John Hall, Commanding Officer of Gardiner General Hospital.

Isaac A. Abt, 77, is back in full harness for his 54th year in the practice of pediatrics at 104

South Michigan Avenue, Chicago. Dr. Abt had largely given up practice when his son, Arthur F. Abt, went to the Navy shortly after Pearl Harbor.

James H. Hutton, Past-President of the Illinois State Medical Society has been invited to talk on "Your Glands, and What They Do To You" before the Detroit Town Hall in Detroit, Michigan, February 21st at 11:00 A. M. The policy of the Detroit Town Hall is to bring each season, twenty outstanding speakers to discuss subjects of popular interest. Dr. Hutton will be the only representative of medicine to appear this season.

#### CRAWFORD COUNTY

J. M. Mitchell of Oblong, 90 years of age and still engaged in the practice of medicine, was honored in October by the Crawford County Medical Society. A dinner was held and he was presented with a leather billfold by L. P. Sloan on behalf of the Society. H. T. Cole of Urbana was the speaker, discussing the subject "Tuberculosis in Its Various Phases." C. E. Wilkinson of Danville, Councilor of the 8th district, gave a report on the activities of the society.

#### DE WITT COUNTY

F. M. Blome of Kenney has returned to his practice after an extended visit with his son and family in Michigan.

Extensive repairs and changes are being made in the building of John Warner Hospital, Clinton.

Only one of DeWitt County physicians in service has been home on leave in the past six months.

The DeWitt County Tuberculosis Association assisted by members of the DeWitt County Medical Society have just completed a skin test and x-ray examination of the members of the senior classes in the six high schools and the teachers of the public schools of the county. No active cases were found in the campaign.

#### DU PAGE COUNTY

Fred M. Drennan addressed the DuPage County Medical Society at a meeting at the Elmhurst Hospital, Elmhurst on October 25th. He talked on "The Diagnosis and Treatment of the Usual Obstructions of the Esophagus." He showed many interesting films and demonstrated the use of esophageal dilators on several of his own patients whom he had arranged to have present. The program was very instructive and interesting to the members and guests present.

Martin F. Heidgen, former Superintendent of Elmhurst Community Hospital, Elmhurst is now back on duty as Superintendent after receiving a medical discharge from the USA Medical Corps. He was in the Southwest Pacific with the West Suburban Hospital Unit for about two years.

### GREENE COUNTY

William H. Garrison of White Hall who has been for many years Secretary of the Greene County Medical Society is the oldest physician in active practice in Greene County.

### LAKE COUNTY

The Lake County Medical Society and the Illinois Trudeau Society held a joint meeting on November 14 at the Lake County Tuberculosis Sanatorium, Waukegan. The Lake County Tuberculosis Sanatorium Board and members of the Sanatorium Staff were hosts to the two organizations. At the business meeting of the Trudeau Society, Dr. D. F. Loewen, Decatur, presiding, officers for 1945 were elected as follows: President, W. J. Bryan, Rockford; President-Elect, D. R. Loewen, Decatur; Vice-President, C. K. Petter, Waukegan; Secretary-Treasurer, L. L. Collins, Ottawa; Executive Committee, K. G. Bulley, Aurora and E. T. McEnery, Chicago. The Society endorsed the intent and desire of the Lake County Tuberculosis Association to appeal for greater Christmas Seal contributions so that the Association might purchase a Mobile Chest X-Ray Unit.

Memorial services for the late Frederick Atwood Besley of Waukegan who at the time of his death last August 16 was secretary of the American College of Surgeons were held at Memorial Hall of the College on November 19. In addition to being a founder-fellow of the American College of Surgeons which he previously headed as president, Dr. Besley was professor of surgery at Northwestern University Medical School. He was a past president of both the Chicago Surgical Society and the Lake County Medical Society.

### MADISON COUNTY

Maurice R. Williamson of Alton has been elected a trustee of the Inter-State Post-Graduate Assembly. He has been head of the staffs at both St. Joseph's and Alton Memorial Hospitals of Alton and is a past president of Alton Medical and Madison County Medical Societies.

### MC DONOUGH COUNTY

The McDonough County Medical Society at its October meeting held in Macomb elected the following officers for the coming year: President, W. W. Holland; Vice-Presidents, W. E.

Carnahan and William P. Standard; Secretary-treasurer, W. M. Hartman. These doctors are all from Macomb.

Announcement has been made of the marriage on November 25th of Mr. Web Johnston of the Commercial Art Press, Monmouth, printers for the Illinois State Medical Society, to Miss Elizabeth Graham of Aurora.

At the recent meeting of the Southern Illinois Medical Society held at Murphysboro, three members of the Illinois State Medical Society who have been in practice more than 50 years, were inducted as members of the Fifty Year Club, and the presentation of the emblems and framed certificates was made by Andy Hall, Mt. Vernon, as Councilor of the 9th Councilor District, and chairman of the Fifty Year Club Committee. These physicians were Barry S. Crebs, Carmi; Charles E. Riseling, Murphysboro and William H. Smith of Benton.

Also with the approval of the Council, Dr. Frank Boyd of Paducah, Kentucky was made an honorary member of the Fifty Year Club. Dr. Boyd was born and reared at McLeansboro, Illinois, a boyhood friend of Dr. Hall, and was graduated from Rush Medical Society in 1889. A pioneer surgeon of Western Kentucky, and a past president of the Kentucky State Medical Association, a frequent attendant, and often speaker at medical meetings in Southern Illinois, Dr. Boyd has many friends especially in the Southern half of this state.

### MARRIAGES

THOMAS D. DUANE, Peoria, Ill., to Dr. Julia A. McElhinney of Iowa City, Iowa, March 22.

### DEATHS

JOHN WILSON ADAMS, Carrollton; University of Nashville Medical Department, Nashville, Tenn., 1898; a captain in the medical corps, U. S. Army, during World War I. Died October 18, aged 78, of coronary thrombosis.

GEORGE J. ASTE, Chicago; Chicago College of Medicine and Surgery, 1908. Physician in Chicago for nearly 40 years. Died in his home November 15th at the age of 67 years.

FRANCIS JOSEPH BROCCOLO, Cicero; Loyola University School of Medicine, 1941. Commissioned a lieutenant (jg) in the medical corps of the U. S. Naval Reserve on Jan. 26, 1942; promoted to lieutenant Oct. 1, 1942; had been awarded the Silver Star; killed in action while at sea in the South Pacific area; aged 26; presumptive date of death Oct. 13, 1943, according to the Navy Department.

JOSEPH A. FISHER, Metropolis; St. Louis University

School of Medicine, 1905. Founder of Fisher Hospital, Metropolis. Died in his home of coronary thrombosis November 1, aged 63.

MARCUS SAMUEL FLETCHER, Georgetown; University of Illinois College of Medicine, 1898. Had practiced medicine in Georgetown about 40 years. Died October 9th following a long illness, aged 75 years.

JOHN G. FRANKEN, Chandlerville; University of Illinois College of Medicine, 1895; member of "Fifty Year Club" of the Illinois State Medical Society. Died November 26th, aged 81 years.

LOUIS C. FRENCH, Chicago; Loyola University School of Medicine, 1905. Died November 20, aged 67, of a heart ailment.

FRANK N. GAGGIN, Chicago; University of Illinois College of Physicians and Surgeons, 1910. Had practiced medicine in Logan Square area for 30 years; former president of the staff at Norwegian American Hospital. Died October 27 at the age of 74.

HARRY H. HAGEY, Chicago; Northwestern University Medical School, 1898. Died in his home November 15th following a short illness. He was 72 years of age.

CECIL T. HEIDEL, Chicago; Northwestern University Medical School, 1912. Was medical director of the Infant Welfare Society of Chicago in 1924 and instructor in pediatrics at Rush Medical College from 1915-1928. Died in his home in Evanston November 13, aged 62.

ANTONIO LAGORIO, Chicago; Rush Medical College, 1879. Director of Chicago Pasteur Institute which he founded 55 years ago; in 1922 was awarded the order of the grand knight of the Crown of Italy by King Victor of Italy in recognition of his services to humanity; had also received the Italian Cross of Chevalier and the silver medal of the Italian Red Cross. Died November 24th following an illness of a week at the age of 87.

JOHN LEEMING, Chicago; Royal College of Physicians and Surgeons, London, 1886. Professor of Materia medica for 10 years at Northwestern University and professor of medical jurisprudence at the Chicago Kent College of Law; was vice president of the American Medical Association in 1918. Had practiced medicine in Chicago for 60 years. Died November 4th, aged 85, in the Illinois Central Hospital.

JOSEPH M. LINDENBAUM, Chicago; Rush Medical College, 1923. South side physician for 20 years. Died in October, 1944, at the age of 46.

LUDWIG M. LOEB, Chicago; Rush Medical College, 1900; post-graduate work in Vienna. Assistant professor of medicine, Rush Medical College, 1906-1934. Died November 6, aged 66.

RALPH GARFIELD MILLS, Decatur; Northwestern

University Medical School, 1907. Aided in building the Kennedy Hospital, Kangkai, Korea, of which he was the head from 1908 to 1912; served as head of the department of pathology in Peking Union Medical College and as instructor in pathology at Johns Hopkins University; formerly professor and head of the department of pathology at the University of Colorado School of Medicine, Denver. Died October 17, aged 63.

EDWARD C. MORTON, Chicago; Chicago Medical College, 1888; Chicago physician for 56 years. Was major in World War I, and served with the army of occupation as a member of the 5th division, 7th engineers. Died November 25th, aged 77, in Hines Hospital.

JEROME DANIEL SOLOMON, Chicago; University of Illinois College of Medicine, 1941; commissioned a first lieutenant in the medical reserve corps of the U. S. Army on June 6, 1941; began active duty Sept. 21, 1942; later promoted to captain. Died in the southwest Pacific area September 16, aged 28, of tsutsugamushi fever and malaria.

SAMUEL SUCHERMAN, Chicago; Chicago College of Medicine and Surgery, 1915. Had practiced medicine in Chicago for 30 years spending 27 years with the Chicago health department and a few years as a county health officer. Died November 8th, aged 79.

FREDERICK G. WHAMOND, Chicago; George Washington University Medical School, Washington, D. C., 1908. Was medical examiner for the Order of Scottish Clans. Died November 12th, aged 79, of a heart attack.

FREDERICKA CAROLINE ZELLER, Peoria; Northwestern University Woman's Medical School, 1894; died in the Methodist Hospital, August 28th, aged 80, of perforated appendicitis.

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#### REPORT THE SURGICAL CURE OF A RARE BLOOD DISEASE

The surgical cure of a blood disease which while rare may, as a result of war wounds, be encountered more frequently, is reported in *The Journal of the American Medical Association* for November 18 by Major Sidney Lipton and Captain Harold Miller, Medical Corps, A.U.S. They say that thus far only two other cases have been reported of surgical cure of *Streptococcus viridans* septicemia (infection of the blood with a virulent strain of streptococci) by means of excision of the infected arteriovenous aneurysm (a sac formed on a bulge of the walls of arteries and veins and filled with blood).

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There has been a gradual and noticeable increase in morbidity of tuberculosis in the aged. Arthur Rest, M.D., *Amer. Rev. of Tbc.*, March, 1942.

# P. R. N.

The Jocular Jingles of C. G. F.

by

Charles G. Farnum M. D.  
Peoria, Ill.

## SOPHISTES THE SEER, MEDITATES

Sophistes, the Seer, sitteth by his hearth-stone and meditateth upon the Christmas time and the Christmas spirit and what it commemorateth.

He visualizeth that far off divine event that brought into a brutish and selfish world wholly new principles and wholly new thinking. Peace on Earth was something new in an age of warfare and strife. Good Will to Men was unknown in a time when might was right. Do Unto Others As Ye Would That They Should Do Unto You was an unheard-of Philosophy.

Small wonder that those in authority cast in their minds what manner of Man this was who spake thus and that they kindled their wrath against Him. Here were teachings that struck at the very foundations of their authority. Small wonder that, as the fame of Him went forth and His following waxed strong and they took heed thereof, that they were filled with wrath and having taken council together were of one mind that to stop the teaching they must crucify the Teacher.

His mind followeth down through the ages when His followers, that they might have fellowship together, met in by-ways or perforce burrowed in the ground as the rodents that they might escape persecution or death from them that had dominion over them.

He thinketh with admiration of those intrepid souls who taught and preached and wrote, hunted and persecuted, undaunted and unafraid. He thinketh of the countless saints and martyrs who gave their all that they might bring light to them that sit in darkness.

He meditateth on the times in the darkened ages when the light of His teaching burned low and the world seemed to have reverted to barbarism and savagery. But even so the Light went not wholly out. And he smiled at the ultimate futility of the efforts of the hordes of darkness and iniquity to quench the light of His teaching.

His meditation bringeth him to the present day and with sadness in his heart he considereth those countries where His teachings have been cast out, where His followers have been oppressed and where His institutions have been destroyed by a perverse generation which ploweth iniquity and soweth wickedness and shall reap whereof they sow. He contemplateth the avalanche of rancor and hate and the deluge of bloodshed and slaughter that cometh therefrom and

seemeth to submerge a goodly portion of the world into a state of bestiality where it walloweth in the mire of lust and corruption and walketh in darkness knowing not whither it goeth.

With anguish in his soul he thinketh of warfare, that grim and heartless destroyer of youth, from which no glory but only sorrow and tribulation and as much of loss to the conqueror as to the vanquished. Yet he findeth some comfort forasmuch as "every work that is corruptible shall fail in the end and the worker thereof shall go with it."

He then considereth his own land where the fire of His teaching burneth bright and the day of His nativity in the one day of universal gladness. With the precepts of the Great Teacher in its mind mankind shaketh off its feet of clay and transcendeth to a plane of Love Thy Neighbor As Thyself. It singeth Peace on Earth, Good Will To Men from the depths of its soul. It gathereth joy and comfort and peace from the giving of gifts to family, to friends and to the less-fortunate ones. It shouteth "Merry Christmas" to all and earnestly prayeth that "of His Kingdom there shall be no end." It awakeneth spiritually and devoutly accepteth the age-old admonition, "love your enemies, do good to them that hate you and pray for them that despitefully use you and persecute you." It reaffirmeth its ancient faith and reasserteth its ancient beliefs and exalteth itself thereby.

Sophistes, the Seer, gazeth at the dying embers on his hearth-stone and from his soul goeth forth a prayer of thankfulness to Him and His teachings from which cometh all things good.

P.R.N. and its scrivener C.G.F., together with Professor Paresis and Sophistes the Seer, extend to each one of you the heartiest of Christmas Greetings.

Both today and throughout all the days: to be  
May the Spirit of Christmas abide with thee.

Less than a generation ago tuberculosis held uncontested leadership among the causes of death; today, its virtual eradication is in sight. It is no longer a fantastic dream for those of us who have been active since the initial stages of the campaign against tuberculosis in America to expect to witness the final stages as well. Louis I. Dublin.

## MAIN ATTRACTION

An old lady, who was about to die, told her niece to bury her in her black silk dress, but to cut the back out and make herself a dress.

"Oh, Aunt Mary," said the niece, "I don't want to do that. When you and Uncle Charlie walk up the golden stairs, I don't want people to see you without any back in your dress."

To which the old lady replied: "They won't be looking at me. I buried your Uncle Charlie without his pants."



*simple depression*  
*"...the most favorable of all disorders*  
*for benzedrine therapy."\**

In simple depression, Benzedrine Sulfate therapy may be expected to benefit the patient by breaking the strangle-hold of pathologically organized habit-patterns and by restoring what Myerson calls the patient's "energy feeling".

The following instances of simple depression are familiar to every physician:—

1. Depression following acute infectious disease, typically influenza.
2. Depression following surgical operations.
3. Depression following pregnancy and childbirth.

4. Depression accompanying the onset and course of the menopause in women and the involution period in men.

5. Depression associated with menstrual dysfunction.

6. Reactive depression precipitated by an external problem situation which the patient can neither resolve, tolerate, nor ignore.

\*Guttman, E. and Sargent, W.—B. M. J., 1:1013, 1937

## **BENZEDRINE SULFATE TABLETS**

[RACEMIC AMPHETAMINE SULFATE]

**SMITH, KLINE & FRENCH LABORATORIES • PHILADELPHIA, PA.**

**NUPERCAINAL\***

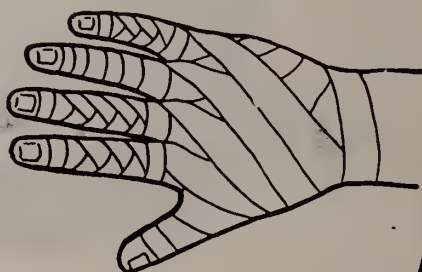
*equals*

**PHYSIOLOGICAL REST**

*equals*

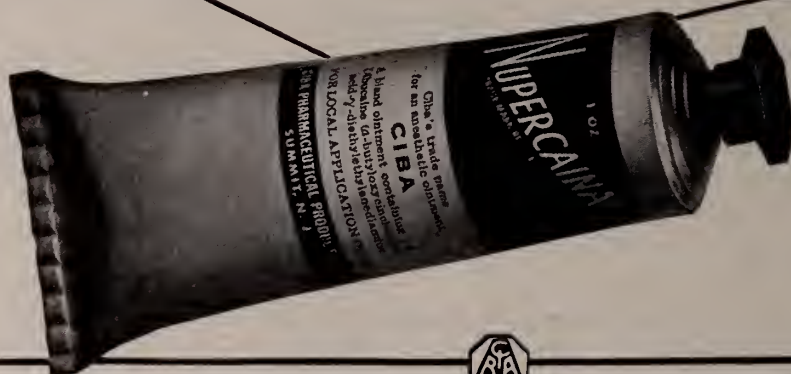
**UNDISTURBED HEALING**

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Doctor, have you  
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**THROAT IRRITATION**  
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Intensive 5-year study of  
2340 cases answers impor-  
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Tampax Menstrual Tampons

THE results of a comprehensive investigation into the safety and efficacy of Tampax menstrual Tampons provide valuable data for the physician's consideration. In this project, studies of bacterial flora and hydrogen ion concentration, vaginal mucosal biopsies and glycogen determinations were undertaken, in addition to gross examinations . . . to answer the following questions:

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No production of irritation or discharge, vaginitis or cervicitis was found in one study group of 218 women employing tampons regularly for one year or over.

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Tampons do not block the flow. On the contrary, they actually act as a wick to draw blood away from the cervix.

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In 110 young nurses (another study group), 95 per cent used tampons with satisfaction all through menstruation. Only 5 per cent could not use tampons in the middle of the period, and in these cases the flow was excessive.

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Three drops each day, the average prophylactic dose, costs your patients only about 4c per week.

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Three drops supply 1,000 U.S.P. Units of vitamin D and 5,000 Units of vitamin A.

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Three drops provide the average daily dose—easy for mother, easy for baby.

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Three drops daily of a bland, palatable oil, free from the unpleasant flavor of many A and D preparations, will be acceptable to both children and adults.

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For vitamin A and D therapy that  
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# NAVITOL WITH VIOSTEROL

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Kendall	No Society	
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(Continued on page 64)

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the same age!**



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**'AVIMAL'** is a palatably-flavored, diastatic malt extract fortified with essential vitamins. Also fine for expectant mothers to help lessen the complications of pregnancy. Available in 8 ounce, 1 pint and  $\frac{1}{2}$  gallon bottles.

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Each fluidounce of **'AVIMAL'** supplies: Vitamin A . . . 13,333 U. S. P. units; Vitamin D . . . 1,333 U. S. P. units; Vitamin B<sub>1</sub> . . . 5.5 Milligrams; Vitamin B<sub>2</sub> . . . 5.5 Milligrams; Nicotinamide . . . 40 Milligrams.



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# Gelatum Alumini Hydroxidi

## BARLOW-MANEY

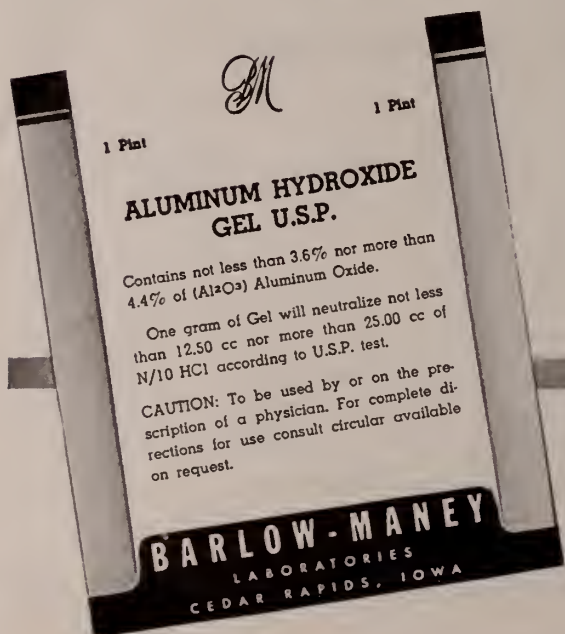
*Unflavored (U.S.P.)*

THE value of Aluminum Hydroxide Gel as an aid in the management of gastric hyperacidity has been established by ample clinical evidence.

Barlow-Maney Aluminum Hydroxide Gel is prepared in accordance with the standards established by the United States Pharmacopoeia.

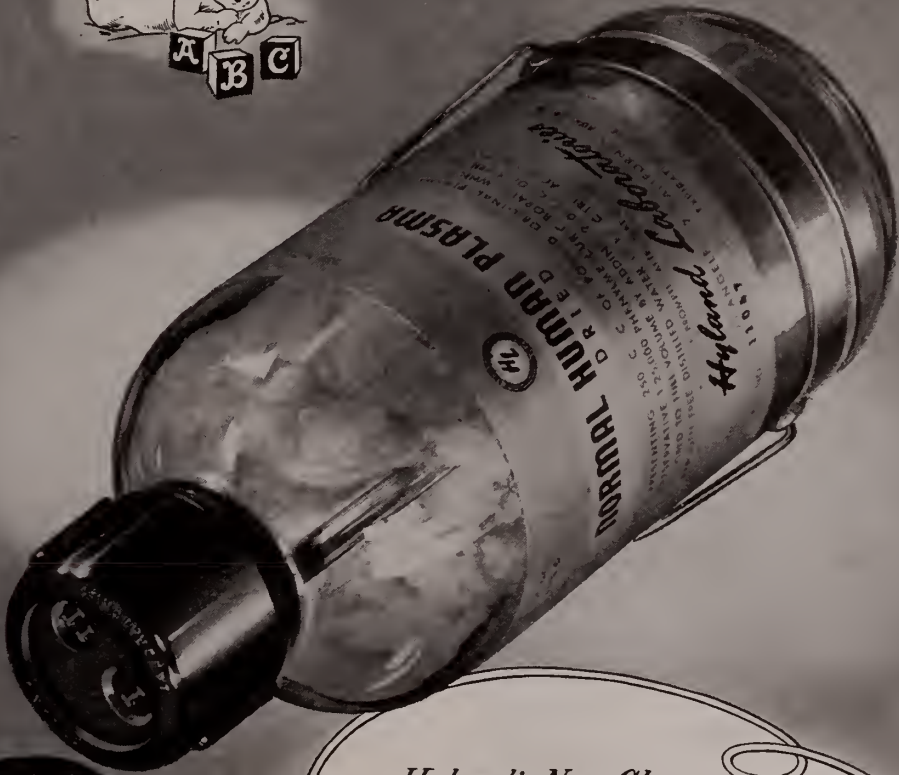
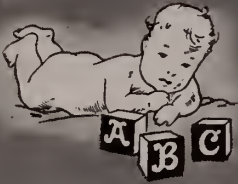
Flavoring agents are omitted as many gastro-enterologists feel that the inclusion in the formula of volatile oils or sugars may favor an increase in gastric secretion.

Barlow-Maney Aluminum Hydroxide Gel, unflavored, is supplied in pint bottles. It is available through Prescription Pharmacies.



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## Book Reviews

LIPPINCOTT'S QUICK REFERENCE BOOK FOR MEDICINE AND SURGERY: A Clinical, Diagnostic, and Therapeutic Digest of General Medicine, Surgery, and the Specialties, Compiled Systematically from Modern Literature, By George E. Rehberger, A.B., M.D., Twelfth Edition, 1944. J. B. Lippincott Company, Philadelphia and London. Price \$15.00.

The first edition of this book was published in 1920 and this twelfth edition appears just 24 years later, which speaks well for its popularity.

The book is divided into eleven parts dealing with the following subjects: general medicine and surgery, including nervous and children's diseases, gynecology, genitourinary diseases, obstetrics, skin diseases, eye diseases, ear diseases, nose diseases, throat diseases, orthopaedics, alphabetical list of drugs, their dosage, solubility, methods of administration, physiologic and toxic action, and uses.

As was the case in the first edition, practically every subject in medicine is covered with the exception of psychiatry. In each part, the subjects are arranged alphabetically which adds materially to the value of this book for quick reference. Then, with a thumb index for the various divisions, this makes it easy to find the department and individual subject in which the reader is interested at the moment.

There are many fine illustrations, some in color.

Covering such a vast amount of material in medicine and surgery, it is possible to find more information than perhaps in any other single volume. Any busy physician should be fortunate indeed to have this fine and comprehensive book in his library. There is but little doubt as to the amount of use this book will receive when the contents are thoroughly noted. Many features have been added to make it truly a "quick reference book of medicine and surgery."

(Continued on page 48)

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Through the non-payment of patients' bills may be recovered now when everyone is making big wages. Commission on results only. Bonded for your protection.

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### NATIONAL DISCOUNT & AUDIT CO.

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# *Natural Vitamins*

## **IN MASSIVE DOSAGE FOR CUTANEOUS AFFECTIONS**

Whether the beneficial results obtained with Apolarthron in certain skin affections are due to a direct pharmacodynamic action or merely to the correction of a vitamin deficiency and its cutaneous manifestations, is yet to be determined. The fact remains that its administration in adequate dosage (3 to 4 capsules daily) rapidly produces notable results in such dermatologic conditions as acne, psoriasis and keratosis follicularis (Darier's disease).

A rapidly growing bibliography attests to the efficacy of both vitamins A and D in high potency, as found in Apolarthron, for the effective treatment of these skin diseases.

### **ACNE**

Doktorsky, A., and Platt, S. S.: Vitamin D in the Treatment of Acne Vulgaris, J.A.M.A. 101: 275 (July 22) 1933.

Hinrichsen, J., and Ivy, A. C.: The Value of Irradiated Ergosterol in the Treatment of Acne Vulgaris, Illinois M. J. 74:85 (July) 1938.

Maynard, M. T. R.: Vitamin D in Acne; Comparison with X-ray Treatment, California & West. Med. 49:127 (Aug.) 1938.

Kulchar, G. V.: Discussion of Vitamin D in Acne, California & West. Med. 49:131 (Aug.) 1938.

Straumfjord, J. V.: Vitamin A: Its Effect on Acne. A Study of One Hundred Patients, Northwest Med. 42:219 (Aug.) 1943.

### **PSORIASIS**

Krafka, J., Jr.: A Simple Treatment for Psoriasis, J. Lab. & Clin. Med. 21:1147 (Aug.) 1936.

Ceder, E. T., and Zon, L.: Treatment of Psoriasis with Massive Doses of Crystalline Vitamin D and Irradiated Ergosterol; Preliminary Report, Pub. Health Rep. 52:1580 (Nov. 5) 1937.

Brunsting, L. A.: Treatment of Psoriasis by Ingestion of Massive Doses of Vitamin D, Proc.

Staff Meet., Mayo Clin. 13:280 (May 4) 1938.

Krafka, J.: Vitamin D Therapy in Psoriasis, J. M. A. Georgia 30:398 (Sept.) 1941.

### **KERATOSIS FOLLICULARIS**

*(Darier's Disease)*

Peck, S. M.; Glick, A. W.; Sobotka, H. M.; Chargin, L.: Vitamin A Studies in Cases of Keratosis Follicularis (Darier's Disease), Arch. Dermat. & Syph. 48:17 (July) 1943.

Carleton, A., and Steven, D.: Keratosis Follicularis, Arch. Dermat. & Syph. 48:143 (August) 1943.

Each capsule of Apolarthron contains 25,000 U.S.P. units of natural vitamin D and 30,000 U.S.P. units of natural vitamin A

*Professional correspondence is invited*



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# Effective Convenient Economical

**T**HE effectiveness of Mercurochrome has been demonstrated by more than twenty years of extensive clinical use. For professional convenience Mercurochrome is supplied in four forms—Aqueous Solution in Applicator Bottles for the treatment of minor wounds, Surgical Solution for preoperative skin disinfection, Tablets and Powder from which solutions of any desired concentration may readily be prepared.

## Mercurochrome

(H. W. & D. brand of merbromin, dibromoxymercurifluorescein-sodium)

is economical because stock solutions may be dispensed quickly and at low cost. Stock solutions keep indefinitely.

Mercurochrome is antiseptic and relatively non-irritating and non-toxic in wounds.

Complete literature will be furnished on request.



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### BOOK REVIEWS (Continued)

**INTERNAL MEDICINE IN GENERAL PRACTICE;**  
By Robert Pratt McCombs, Lieutenant, Medical Corps, United States Naval Reserve; Recently Instructor in Internal Medicine for the Statewide Postgraduate Program of the Tennessee State Medical Association. On leave of absence from the staffs of the Pennsylvania Hospital, the Abington Memorial Hospital and the Jefferson Medical College, Philadelphia. Illustrated. W. B. Saunders Company, Philadelphia and London, 1943. Price \$7.00.

The foreword of this book was written by Rear Admiral Ross T. McIntyre, Surgeon General of the United States Navy. Admiral McIntyre compliments the author on his ability to provide for the general reader a book not too technical, a guide to the newer methods and mechanical aids to diagnosis, and to cover adequately the latest refinements in laboratory technique.

The first chapter on "Fundamentals of Diagnosis" is highly interesting, instructive and to the point. Then in turn, the author has included chapters on "Disorders of the Heart", "Hypertension and Diseases of the Kidney and Urinary Tract", "Disorders of the Gastro-intestinal Tract", "Nutritional Deficiencies", "The Anemias, Blood Dyscrasias and Allied Diseases", two chapters on "The Infectious Diseases", then chapters on essentials covering the field of medicine in a general way.

The plan followed in discussion of each subject is well shown in the section on disorders of the heart. Following the complete survey of the patient, a number of questions are submitted which should be answered in order that the

(Continued on page 50)

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**to discourage thumb-sucking  
and nail biting**

Apply like nail polish

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**THUM**  
TRADE MARK contains extract of  
capsicum (2.34%) in a base of acetone  
nail lacquer and isopropyl alcohol.



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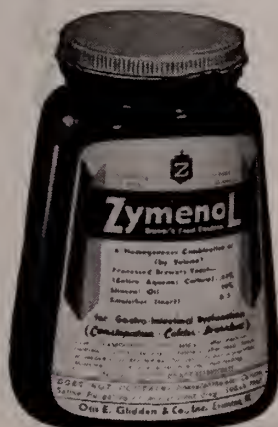
Brewer's Yeast Emulsion



Smythe

## A TANDEM ACTION in Gastro-Intestinal Dysfunction

*Equally Effective In:*  
**Constipation**  
**Colitis • Diarrhea**



**Zymenol** Assures normal intestinal content through brewers yeast enzymatic action.\*

Aids restoration of normal intestinal motility with complete natural vitamin B Complex.\*

This two fold natural therapy is equally effective in the irritable, unstable or stagnant bowel without catharsis, artificial bulkage, large doses of mineral oil or constipating astringents.

*Economical teaspoon dosage avoids leakage and interference with vitamin absorption.*

Write for FREE clinical size.

\*Zymenol Contains Pure  
Aqueous Brewers Yeast  
(no live cells)

OTIS E. GLIDDEN & CO., INC. EVANSTON ILLINOIS

## BOOK REVIEWS (Continued)

proper diagnosis may be made and proper management instituted. These questions are then discussed in much detail, beginning with "Are the symptoms and signs due to a cardiac disturbance or to some other cause?" As the author so well states, many serious diagnostic errors can be avoided if great care is observed in answering this question.

The symptoms elicited in the history and findings followed careful clinical examination, are evaluated with a discussion of the various ailments which can produce the same findings and clinical evidence elicited. The five etiological factors in the production of 90% of all heart diseases are described in much detail, then the management of the case after the diagnosis is made, is described in a most interesting manner.

The other chapters are presented in a similar manner, in a way which will please the average reader desiring information on the many subjects presented, in the book. Having recently been an instructor in internal medicine for a statewide post-graduate program, the author said the need for a concise volume in which the practical clinical aspects of internal medicine are

outlined, was made apparent to him. He found many misconceptions on the part of practitioners in regard to points of fundamental importance. Many of these misconceptions, he believes, resulted in failure to grasp the full significance of many of the recent developments in physical science during recent years.

## Books Received

The following books have been received for reviewing, and are herewith acknowledged. This listing should be considered as a sufficient return for the courtesy of the sender. Books that appear to be of unusual interest will be reviewed as space permits each month. Readers desiring additional information relative to books listed, may write the Editor who will gladly furnish same promptly.

**SYMPTOMS OF VISCERAL DISEASE: A Study of the Vegetative Nervous System in Its Relationship to Clinical Medicine;** By Frances Marion Pottenger, A.M., M.D., LL.D., F.A.C.P., Medical Director, Pottenger Sanatorium and Clinic for Diseases of the Chest, Monrovia, California; Professor Emeritus of Clinical Medicine, University of Southern California; Author of "Clinical Tuberculosis," "Tuberculin in Diagnosis and Treatment," "Muscle Spasm and De-

(Continued on page 54)

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**NATIONAL**

**CITRATE OF  
MAGNESIA  
U. S. P.**

**For INFLUENZA and GRIPPE**

The gastro-intestinal syndrome is greatly relieved by purgation  
with solution citrate of magnesia.

**THE FAVORITE LAXATIVE WITH MANY PHYSICIANS**

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# FOR OPTIMAL HEMOPOIETIC RESPONSE

## R<sub>x</sub> HEPATINIC



The combination of ferrous sulfate and crude (un-fractionated) liver concentrate together with the essential factors of the vitamin B complex has been shown to produce a lasting recovery in chronic secondary anemia—as against the temporary result produced by iron and the B vitamins.

The crude (unfractionated) liver concentrate incorporated in

### ELIXIR **HEPATINIC** "McNEIL"

has definite nutritional advantage over purified, concentrated liver extracts. The crude form retains certain valuable components of the original extract — factors which have demonstrated a hemopoietic effect.

The pleasant taste of Elixir Hepatinic is important since prolonged administration is generally indicated in antianemia therapy.

Each fluid ounce contains: Ferrous Sulfate 12 gr., Crude Liver Concentrate (equivalent to 660 gr. fresh liver) 60 gr., Thiamine Hydrochloride 2 mg., Riboflavin 4 mg., Niacinamide 20 mg., with pyridoxine, pantothenic acid, choline and other factors of the vitamin B complex.

*Bottles of one pint and one gallon*



"I hear the war's practically over...back home!"

PROBABLY it's only natural for us here at home to feel that the war's almost won, the way the good news has been pouring in.

But the war's not over for *him*—*not by a long sight!* And he's just one of a few million or more that will stay over there until they finish the bloody mess. Or kill time for a few months—or years—in some hospital.

What about *you*?

This is no time to relax. No time to forget the unfinished business. It's *still* your war, and it *still* costs a lot.

So dig down deep this time. Dig down till it hurts, and get yourself a hundred-dollar War

Bond over and above any you now own—or are now purchasing. This 6th War Loan is every bit as important to our complete and final Victory as was the first.

Don't "let George do it"—get *yourself* that *added* bond, help finish a magnificent job *right*. The quicker you reach down deep, the better you do *your* job for war, the more you'll contribute to ending the fight. And the quicker they'll come back—the guys that can *still* be killed.

After all, you're safe and sound and *home*. *That's* worth another hundred-dollar bond to you, isn't it?



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THE unique value of this new, effective method for the local treatment of certain throat infections consists in this:

1. Chewing one tablet for as long as one hour provides a *high* salivary concentration (averaging 70 mg. per cent) of *dissolved* sulfathiazole . . .
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3. yet relatively small amounts of the

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generation," Etc. Sixth Edition With Eighty-Seven Text Illustrations and Ten Color Plates. The C. V. Mosby Company, 1944, St. Louis. Price \$5.00.

## ELEMENTS OF ELECTROCARDIOGRAPHIC INTERPRETATION:

By Louis N. Katz, A.M., M.D., Director of Cardiovascular Research, The Michael Reese Hospital, Chicago; Professorial Lecturer in Physiology, The University of Chicago; and Victor Johnson, Ph.D., Professorial Lecturer in Physiology, The University of Chicago. Third Edition. The University of Chicago Press, Chicago, Illinois. 1944. Price \$1.00.

## THE ART OF RESUSCITATION: By Paluel J. Flagg, M.D.,

Chairman, Committee on Asphyxia, American Medical Association; President and Founder of the Society for the Prevention of Asphyxial Death, Inc.; Director of Pneumatology, New York World's Fair, 1939, Incl.; Author, "Art of Anaesthesia"; Visiting Anaesthetist, Manhattan Eye and Ear Hospital, etc.

Reinhold Publishing Corporation, New York, 1944. Price \$5.00.

INTERNS HANDBOOK: A Guide, especially in Emergencies, for the Intern and the Physician in General Practice. By the Members of the Faculty of the College of Medicine, Syracuse University. Under the Direction of M. S. Dooley, A.B., M.D., Professor of Pharmacology, and Maynard E. Holmes, M.D., F.A.C.P., Professor of Clinical Medicine, co-Chairman, Publication Committee. Third Edition. J. B. Lippincott Company, Philadelphia and London, 1944. Price \$3.00.

SYNOPSIS OF CLINICAL LABORATORY METHODS: By W. E. Bray, B.A., M.D., Professor of Clinical Pathology, University of Virginia; Director of Clinical Laboratories, University of Virginia Hospital. Ninety-three Text Illustrations. Twenty Color Plates. Third Edition. The C. V. Mosby Company, St. Louis, 1944. Price \$5.00.

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### TABER'S DICTIONARY OF GYNECOLOGY AND OBSTETRICS:

By Clarence Wilbur Taber, Medical editor and author of Taber's Cyclopedic Medical Dictionary, Taber's Condensed Medical Dictionary and Dictionary of Food and Nutrition, etc., With the Collaboration of Mario A. Castallo, M.D., F.A.C.S., Assistant Professor of Obstetrics, Jefferson Medical College; Gynecologist to St. Mary's and St. Agnes' Hospitals; Obstetrician to St. Mary's Hospital; Diplomat, American Board of Obstetrics and Gynecology, etc. Illustrated. F. A. Davis Company, Publishers, Philadelphia, 1944. Price —.

MODERN CLINICAL SYPHILOLOGY: By John H. Stokes, M.D., Professor of Dermatology and Syphilology, School of Medicine and Graduate School of Medicine, University of Pennsylvania; Director, Institute for the control of Syphilis, University of Pennsylvania; Herman Beerman, M.D., Sc.D. (Med.). Assistant Professor of Dermatology and Syphilology, School of Medicine and Graduate School of Medicine, University of Pennsylvania; and Norman R. Ingraham, Jr., M.D., Assistant Professor of Dermatology and Syphilology, School of Medicine, University of Pennsylvania. Third Edition, Reset. 1332 pages with 911 illustrations. Philadelphia and London: W. B. Saunders Company, 1944. Price \$10.00.



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Arch. Otolaryng., 39:109-123, 1944.

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These patients, who were treated with injections of a solution of acacia in the years from 1937 to 1943 inclusive, all were suffering from a late stage of Bright's disease which manifested itself in a water-logging of the system due to the inability of the kidneys to perform their function of excretion. The two authors point out that "The mode of action of acacia is not certain, but it does facilitate excretion of sodium chloride and water." Of the 109 patients, 72 were alive and 25 were dead at the time of the follow-up investigation. The investigators say they received no response concerning 12. Of the 72 patients known to be living, 27 were more than 40 years of age at the time when data for the report were gathered.

Of the 72 living patients at the time of the follow-up investigation, 49 were doing a full day's work, substantial work, as business executives, stenographers, farmers, housewives and students. One woman was

teaching school in addition to caring for her house and family. Two patients were only slightly handicapped, 19 were working part time, at least half a day, and 2 were bed patients. One of the latter was a man 74 years of age.

The two physicians say that their study indicates that many of the patients with this condition who were treated successfully with acacia have been able to maintain more nearly normal economic and social existences than they had been able to lead before treatment. No evidence was found that acacia was harmful to any of these patients.

Swiss physicians report that diet deficiencies in France in calories, protein, minerals and vitamins are producing deficiency diseases, delaying growth, and greatly lowering resistance to acute and chronic infections in French children. Tuberculosis, rickets, scurvy and dermatitis are rapidly increasing and living conditions as well as hunger are having a serious effect on delinquency and on the mental and social attitudes of children. In some countries there are reports of alarming increases in vision and hearing defects. In all these countries hunger is combined with suffering from cold, due to lack of fuel for homes and to lack of clothing and shoes. Martha Koehen, Ph.D., Ohio State Med. Jour., Sept., 1944.



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<sup>1</sup> Diseases of the Skin: Sutton & Sutton, 1939, p. 99.

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# RECEIVES FIRST MEDICAL REPORT FROM A NAZI LIBERATED NATION

Gratitude for the liberation of Belgium by the Allies and amazement at the organization of war surgery that has been built up at the front by the Allied armies is expressed by the regular correspondent in Belgium for *The Journal of the American Medical Association* in the first communication received from him since Germany occupied the country. He says:

"The people of Belgium deeply appreciate the liberation of our country by the Allies. They have shown their patriotic enthusiasm for the cause of liberation and their admiration for your army. We, the Belgian physicians, wish to express also our deep gratitude to your country and our admiration for your army. We are now able to see for ourselves on our reconquered soil the amazing organization of war surgery that has been built up by the Allies at the front. Because of our experience with the hospitals during the war of 1914-1918 we can appreciate the progress achieved in the care of the wounded, and we propose to learn from contact with your medical officers the advances in war surgery that have given such good results in this war.

"I wish to write a few words regarding our experiences during the occupation: The practice of all Belgian physicians was regulated by a dictatorial order which had many arbitrary rules (for authorization to practice, location of physicians and similar matters). Fortunately these regulations were received generally with inertia, and 90 per cent of physicians continued practicing without openly protesting against the regulations, suffering vexation, to be sure, but practically ignoring their existence.

"As for the Belgian medical press, two journals continued to be published, one in Flemish and one in French. Some of the material of medical journals which were suppressed by the invaders was provisionally published by the International Office of Medico-Military publications in the *Archives medicales Belges* from May 10, 1940. We never could obtain any medical literature except from Germany. All papers were suppressed by the invaders. The literature that we received consisted of medical items from Swiss journals sent to us in envelopes as if they were letters.

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"That's right, sir," said the manager.

"Well," said the customer, "just lend me one of your clubs, will you?"

## THE PROPRIETIES

Mike and Cassidy met in the lodge room.

"Sure, Mike, my bhoy, and what's the idea of wearing a mourning band on your left leg?" asked Cassidy wonderingly.

"Me mither has passed away, an' all an' all," said Mike miserably.

Cassidy scratched his head, puzzled.

"Why, then do you wear it on your leg instead of on your arm?" he asked.

"Well, she was my stepmither," said the other.

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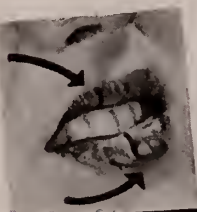
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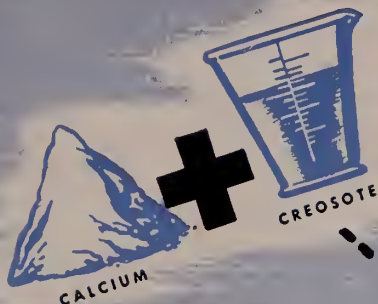
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<sup>1</sup>Fellows, E. J.: J. Pharm. & Exper. Ther., 60:178, 183, 1937.

<sup>2</sup>Stevens, M. E. et al: Canad. Med. Assn. J., 48:124, 1943.



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